SERV. 58181

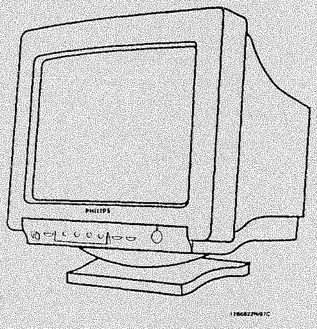
17" Auto scan Colour Monitor

Chassis

17B6822Q
17B6822N/75C/97C
D1028LR

CM6800

Service
Service
Service



EPA POLLUTION PREVENTER

DDC/Audio/Power saving/Tilt correction

Service Manual

Horizontal frequencies
30 - 66 kHz

Contents

			Page	
1.	Technical data		2	
2.	Connection facilities and control function		3	
3.	Warning and Notes		7	
4.	Mechanical Instructions		8	
5.	Wiring diagram		9	
6.	Alignment Location		10	
7.	Electric Instruction		11	
	Electrical diagrams and PWB layout		*Diagram*	*PWB*
	Block diagram		13	
	Video Panel	(Diagram A)	14	15
	Main Panel	(Diagram B)	16	18
	Main Panel (Power supply)	(Diagram C)	19	18
	Audio Panel	(Diagram D)	20	18
7.	Repair Tip		21	
8.	Exploded view		22	
9.	Spare parts list		23	

Published by BU Monitor

Copyright reserved Subject to modification July 19 1996

GB 4822 727 21057

PHILIPS

PCS 87 417

1. Technical data

General

- Mains voltage	: AC 90-264 V
- Mains frequency	: 47-63 Hz
- Power consumption	: 90 W (typical) : 100 W (max.)
- Operating temperature	: 0 °C to 40 °C
- Weigh	: 18.5 kg
- Dimension (WxHxD)	: 417 x 426 x 450 mm

Picture tube

- Size	: 17 inch
- Light transmission	: 52 %
- Deflection angle	: 90 degrees
- EHT voltage	: 2 kVolt
- Pitch	: 0.28 mm
- Phosphor	: P22 medium short

Video

- Dot rate	: 110 MHz
- Video signal	: 0.7 Vpp linear/75 ohm
- Image size	: 300 +/- 3 mm x 225 +/- 3 mm
- H-Shift range	: Total 20 mm min
- V-Shift range	: Total 10 mm min

Sync. signal

- Sync. polarity	: Positive or Negative
- Vertical frequency	: 50-110 Hz
- Horizontal frequency	: 30-66 kHz

Image geometry

- Total geometrical distortion of the image (pincushion and barrel distance)	: 4.0 mm max.
- Horizontal tilt (rotation)	: <= 2 mm max.
- Image non-linearity (according IEC 107-73,74)	: 10 % max. horizontal 10 % max. vertical

Power Management

Power Management Definition

VESA DPMS				Power Saving Status		
Mode	Video	H-Sync	V-Sync	Power Used	Power Saving	LED color
ON	Active	Yes	Yes	Normal	0 %	Green
Stand-by	Blanked	No	Yes	< 15 Watts	> 85 %	Yellow
Suspend	Blanked	Yes	No	< 15 Watts	> 85 %	Yellow
OFF	Blanked	No	No	< 5 Watts	> 95 %	Amber

This monitor is Energy Star compliant and TCO '92 power management compatible.

PHILIPS is a partner in the EPA's Energy Star Computer Program.

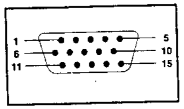
Resolution modes and sync. polarities

Mode ID	Mode	Resolution dots x line	Horizontal Freq. (kHz)	Vertical Freq. (Hz)	Sync. polarity H	Sync. polarity V
M01	VGA	640 x 400	31.5	70	-	+
M02	VGA	640 x 480	31.5	60	-	-
M03	MAC II	640 x 480	35.0	66.7	-	-
M04	VGA	640 x 480	37.5	75	-	-
M05	SVGA	800 x 600	35.2	56	+/-	+/-
M06	SVGA	800 x 600	37.8	60	+	+
M07	SVGA	800 x 600	46.9	75	+	+
M08	QUADRA	832 x 624	49.7	75	-	-
M09	8514/A	1024 x 768	35.5	87	+	+
M10	VESA	1024 x 768	48.4	60	-	-
M11	VESA	1024 x 768	56.5	70	+/-	+/-
M12	VESA	1024 x 768	60.0	75	+	+
M13		1280 x 1024	64.0	60	-	-

2. Connection facilities

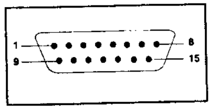
Pin assignment 15p 'D' shell (3 and 2 rows)

1. The 15 pin D-sub connector (male) of the signal cable (IBM system):



Pin No.	Assignment	Pin No.	Assignment
1	Red video input	8	Blue video ground
2	Green video input	9	No pin
3	Blue video input	10	Logic ground
4	Identical output connect to pin 10	11	Identical output connect to pin 10
5	Ground	12	Serial data line (SDA)
6	Red video ground	13	H. sync / H+V
7	Green video ground	14	V. sync (VCLK for DDC)
		15	Data clock line (SCL)

2. The 15 pin D-sub connector (male) of the adapter (Apple Macintosh system):



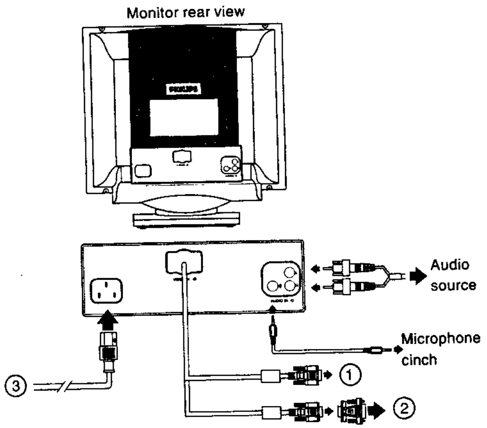
Pin No.	Assignment	Pin No.	Assignment
1	Red ground	9	Blue video
2	Red Video	10	Sense 2
3	Composite sync,H+V	11	Composite sync & V. sync ground
4	Sense 0		
5	Green video	12	V. sync
6	Green ground	13	Blue video ground
7	Sense 1	14	H. sync ground
8	Not connected	15	H. sync

Connection

Important: Please make sure the AC power to your computer is "OFF" before connecting or disconnecting any display peripheral. Failure to do so may cause serious personal injury as well as permanent damage to your computer equipments.

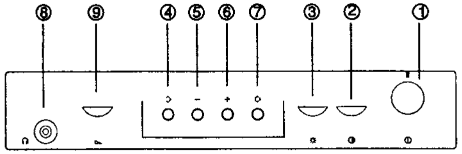
Connect the monitor to the computer using the supplied interface cables. Connection with computer system other than IBM PC or Apple computers may need different type of adapters. Please consult your computer supplier for these adapters. Connect the power cord to a wall outlet after the interface cable is properly connected.

1)IBM PC connection
2)Apples's connection
3)Mains connection



3. Control locations and Functions

Monitor control panel



Descriptions of knobs and keypads on front control panel

① ⏻ - Press this knob to switch ON and OFF of monitor's power

② ◑ - Adjust contrast of the display

③ ☼ - Adjust brightness of the display

④ › - To scroll up the OSD function

⑤ – - Decrease value for controlled item

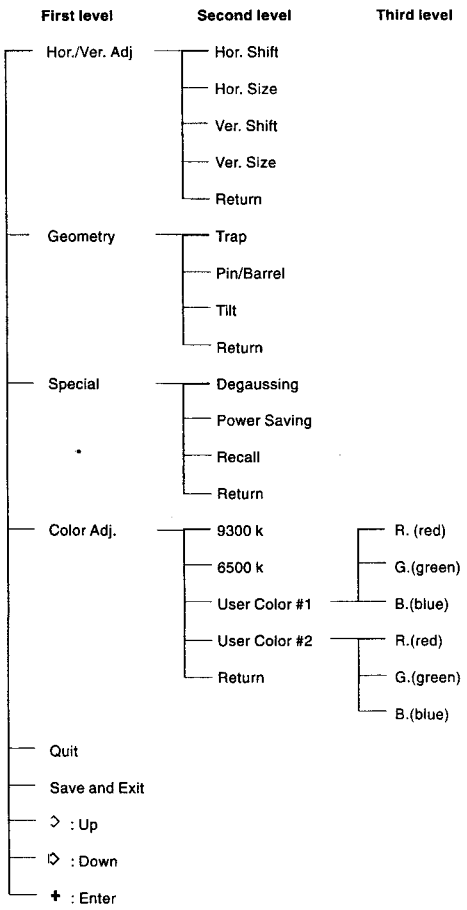
⑥ + - Confirm the selection on highlighted icon
- Increase value for controlled item

⑦ ▷ - Activate OSD menu
- To scroll down the OSD function

⑧ ∩ - Connect with an earphone

⑨ ◺ - Adjust volume of internal speakers and earphone output

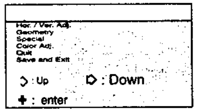
OSD menu tree structure


First level
Second level
Third level
Hor./Ver. Adj
Hor. Shift
Hor. Size
Ver. Shift
Ver. Size
Return
Geometry
Trap
Pin/Barrel
Tilt
Return
Special
Degaussing
Power Saving
Recall
Return
Color Adj.
9300 k
6500 k
User Color #1
User Color #2
Return
R. (red)
G.(green)
B.(blue)
R.(red)
G.(green)
B.(blue)
Quit
Save and Exit
› : Up
▷ : Down
+ : Enter

4. Adjustment Via On-Screen-Display

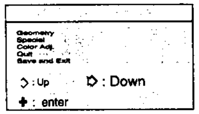
One example

Use following steps to adjust horizontal shift (position) of the display:
- Press " ▷ ", you will see an OSD window (main menu) on the screen.

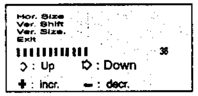

Hor. / Ver. Adj.
Geometry
Special
Color Adj.
Quit
Save and Exit
› : Up
▷ : Down
+ : enter

- Resolution and frequency of the display
- Adjustment functions

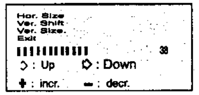
- Press ▷ to place highlighted (yellow) item


Geometry
Special
Color Adj.
Quit
Save and Exit
› : Up
▷ : Down
+ : enter

- Press + , a scale presented on the picture of OSD window.


Hor. Size
Ver. Shift
Ver. Size.
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

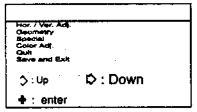
- Press + or - to adjust the horizontal shift of the display. The scale in OSD window shows the controllable range.


Hor. Size
Ver. Shift
Ver. Size.
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

- The magnitude value of scale bar will be decreased or increased according to the adjustment.

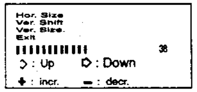
- When the display has been adjusted to an appropriated position, press ▷ scroll down to "Return" position and then press + once to go back to first layer of OSD menu. Press ▷ once to "Save and Exit", press "+" ,then the adjusted parameters are automatically saved.

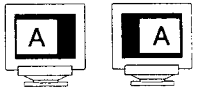
Adjustments of horizontal shift, horizontal size, vertical shift , vertical size, and image rotation


Hor. / Ver. Adj.
Geometry
Special
Color Adj.
Quit
Save and Exit
› : Up
▷ : Down
+ : enter

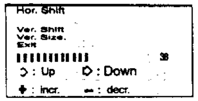
- Press ▷ to activate OSD menu.
- Press▷ ,› to move the highlight to the function you want to adjust.
- Press ▷ to select "Hor./Ver. Adj" and press + to confirm the selection.
- Press +,- to adjust the selected function.
- Press ▷ to "Return" and press + to back to the OSD main menu.
- Press ▷ to exit and save.
- Press + to confirm the save, and the adjustments will be automatically saved.

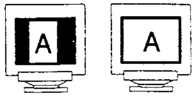
Horizontal shift


Hor. Size
Ver. Shift
Ver. Size.
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

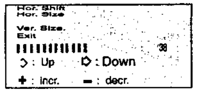


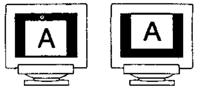
Horizontal size


Hor. Shift
Ver. Shift
Ver. Size.
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

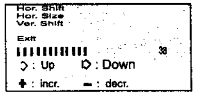


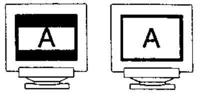
Vertical shift


Hor. Shift
Hor. Size
Ver. Size.
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

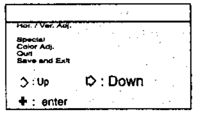


Vertical size


Hor. Shift
Hor. Size
Ver. Shift
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

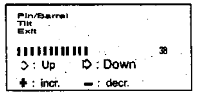


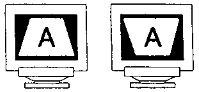
Geometry correction


Hor. / Ver. Adj.
Special
Color Adj.
Quit
Save and Exit
› : Up
▷ : Down
+ : enter

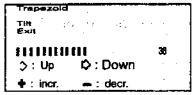
- Press ▷ to activate OSD menu.
- Press ▷ ,› to move the highlight to the function you want to adjust.
- Press ▷ to select "Geometry" and press + to confirm the selection.
- Press +,- to adjust the selected function.
- Press ▷ to "Return" and press + to back to the OSD main menu.
- Press ▷ to exit and save.
- Press + to confirm the save, and the adjustments will be automatically saved.
- Press + to the 2nd layer of OSD menu. (geometry correction sub-menu).

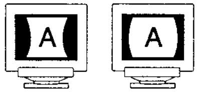
Trapezoid


Pin/Barrel
Tilt
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

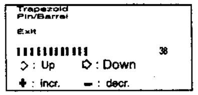


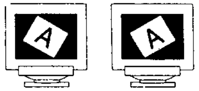
Pincushion / barrel


Trapezoid
Tilt
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

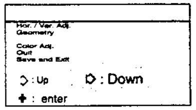


Tilt


Trapezoid
Pin/Barrel
Exit
38
› : Up
▷ : Down
+ : incr.
– : decr.

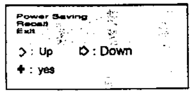


Special


Hor. / Ver. Adj.
Geometry
Color Adj.
Quit
Save and Exit
› : Up
▷ : Down
+ : enter

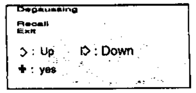
- Press ▷ to activate OSD menu.
- Press ▷ ,› to move the highlight to the function you want to adjust.
- Press ▷ to select "Special" and press + to confirm the selection.
- Press ▷ to "Return" and press + to back to the OSD main menu.
- Press ▷ to exit and save.
- *Press + to confirm the save, and the* adjustments will be automatically saved.

Degaussing



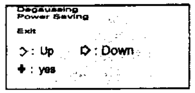
- Press▷ ,› to move the highlight to the "Degaussing" function.
- Press + to confirm the selection.
- Press ▷ to "Return" and press + to back to the OSD main menu.
- Press▷ to exit and save.
- Press + to confirm the save, and the adjustments will be automatically saved.
- Press ▷ to perform degaussing.

Enable/ disable power saving



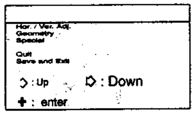
- You can enable or disable automatic power saving function . Default setting is "enable". You can choose disable if you don't want the monitor to automatically reduce its power consumption.

Recall



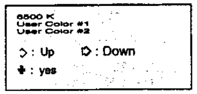
- In the 2nd layer of "Special" function of OSD menu, press +,- to place highlighted item on Recall.
- Press + to perform recall function. in this case, the horizontal shift, horizontal size, vertical shift, vertical size, image rotation, geometry correction, and input selection of current mode are restored by factory preset parameters.

Color adjustment color Adj.



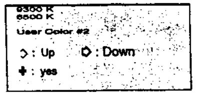
- Press ▷ to activate OSD menu.
- Press▷ ,› to move the highlight to the function you want to adjust.
- Press ▷ to select "Color Adj." and press + to confirm the selection.
- Press +,- to adjust the selected function.
- Press ▷ to "Return" and press + to back to the OSD main menu.
- Press ▷ to exit and save.
- Press▷ to confirm the selection and prsee -,+ to the 2nd layer of OSD menu. (color adjustment sub-menu).

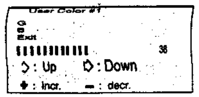
9300 K or 6500 K color temperature



- In color adjustment sub-menu, press ▷ to place the higflighted icon on "9300K" or "6500K".
- Press + to confirm the color temperature setting.

Customized color setting(user's mode 1 and 2)

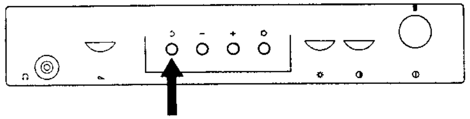




- In color adjustment sub-menu, press ▷ to place the highlighted icon on User Color #1 or User Color #2.
- Press + to confirm the selection.
- Press ▷ , › to select "R" (red),"G"(green), or "B" (blue) of color components you want to adjust.
- *Press+,- to adjust the color component* you just selected.
- Press ▷ to "Return" to previous menu ,then select "Return" again to the OSD main menu.
- Press + to confirm the save, and the adjustments will be automatically saved.

What if you get lost in OSD tree structure?

You can select Return to go back to upper layer of OSD menu until quitting from OSD. In this case, no adjustment will be saved unless "Save and Exit" item is celected.



Warning and notes

1. Safety Instructions for Repairs

1.1 Safety regulations require that during a repair:

- The set should be connected to the mains via an isolating transformer.
- Safety components, indicated by the symbol ⚠, should be replaced by components identical to the original ones.
- When replacing the CRT, safety goggles must be worn.

1.2 Safety regulations require also that after a repair:

- The set should be returned in its original condition.
- The cabinet should be checked for defects to avoid touching, by the customer, of inner parts.
- The insulation of the mains lead should be checked for external damage.
- The mains lead strain relief should be checked on its function.
- The cableform and EHT cable are routed correctly and fixed with the mounted cable clamps in order to avoid touching of the CRT, hot components or heat sinks.

• Thermally loaded solder joints should be checked and resoldered where necessary. This includes components like LOT, the line output transistor, fly-back capacitor.

2. Maintenance Instructions

It is recommended to have a maintenance inspection carried out periodically by a qualified service employee. The interval depends on the usage conditions.

- During the maintenance inspection the above mentioned "safety instructions for repair" should be carried out The power supply and deflection circuitry on the chassis, the CRT panel and the neck of the CRT should be cleaned.

When cleaning the monitor on the outside:
- Always disconnect the monitor from the mains.
- Always use a damp AND NOT WET lint-free cloth.
- To clean the screen, apply a household glass cleaner to a cloth and then wipe the screen.
- Do not use solvents or abrasives on the monitor. It might discolour the cabinet and/or affect the anti glare treatment on your screen.

3. Warnings

3.1 In order to prevent damage to ICs and transistors, all high-voltage flash-overs must be avoided. In order to prevent damage to the picture tube, the method shown in Fig 3.1 should be used to discharge the picture tube. Use a high-voltage probe and a multimeter (position DC-V). Discharge until the meter reading is 0V (after approx 30s).

3. 2 ESD ⚠

All ICs and many other semiconductors are sensitive to electrostatic discharges (ESD). Careless handling during repair can drastically shorten the life. Make sure that during repair you are connected by a pulse band with resistance to the same potential as the earth of the unit. Keep components and tools also at this same potential.

3.3 Be careful when taking measurements in the high-voltage section and on the picture tube panel.

3.4 Never replace modules or other components while the unit is switched on.

3.5 When making settings, use plastic rather than metal tools. This will prevent any short-circuit and the danger of a circuit becomes unstable.

3.6 After repair the wiring should be fastened once more in the cable clamps for this purpose.

3.7 Together with the deflection unit the picture tube is used as an integrated unit. Adjustment of this unit during repair is therefore not recommended.

4. Notes

The semiconductors indicated in the circuit diagram(s) and in the parts lists are completely interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.

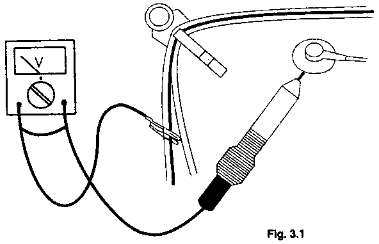


Fig. 3.1

Mechanical Instructions

1. Location of the Panels (see Fig. 6.1)

1.1 Deflection + Supply panel
1.2 Video panel

2. General

To be able to perform measurements and repairs on the "circuit boards", these unit should placed in the service position first:
- Remove back cover (6 screws),see fig. 6.2.

Video panel
- Remove the metal shielding by desolder 11 joints.

3. Main panel

- Remove the video panel from CRT.
- Disconnect the desired cable trees.
- Remove 6 screws, see Fig. 6.1.
- Slide out the metal shield first.
- Slide the main panel out of bottom plate.
- Place Main panel in service position as shown in Fig.6.3.

4. Remark

4.1 extension cables are required for the service position of the Main panel.

- 4822 321 61698 2p to 2p cable to degaussing coil.

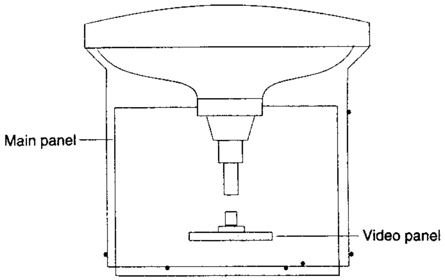


Fig. 6.1

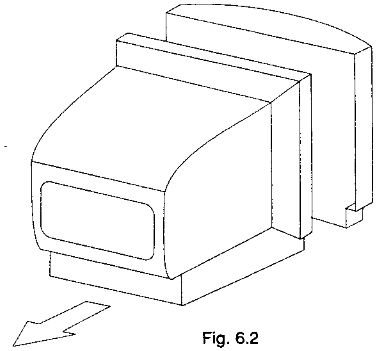


Fig. 6.2

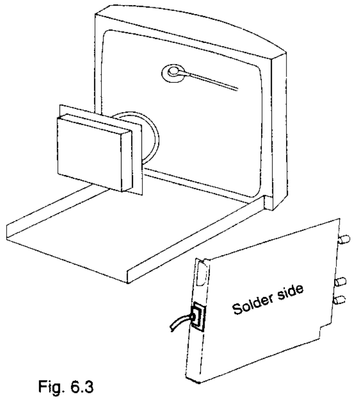
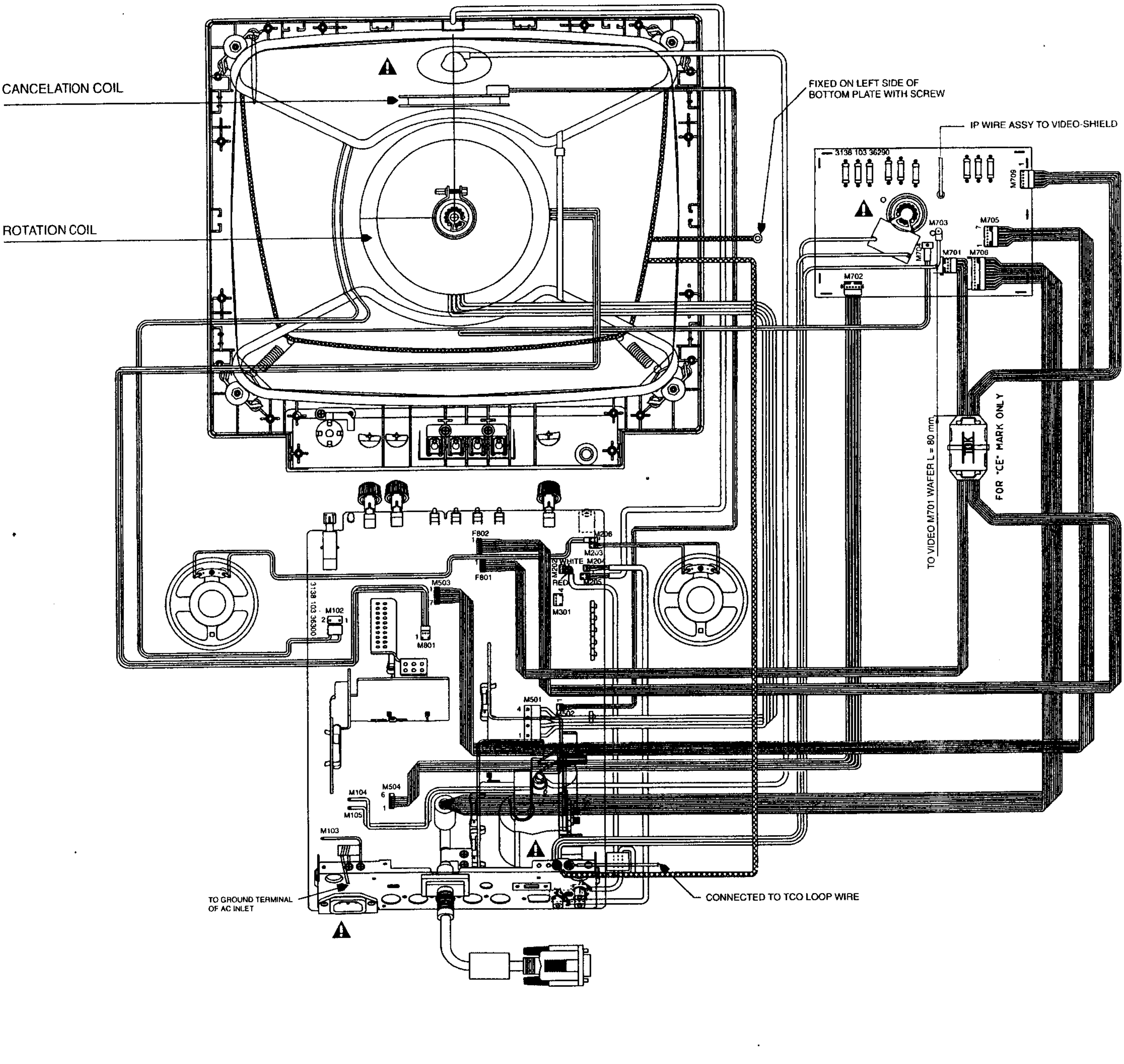


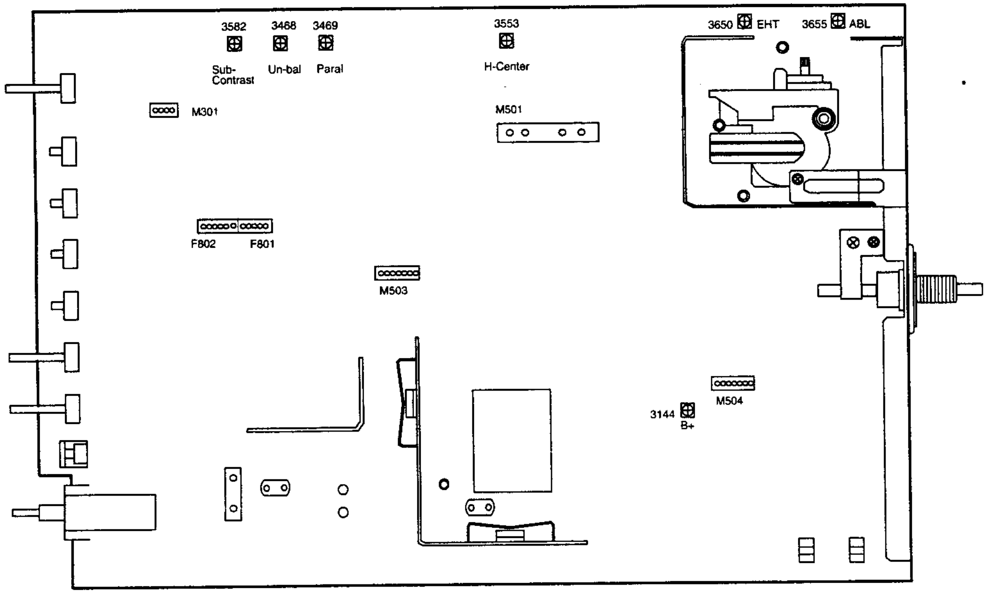
Fig. 6.3

Wiring diagram


CANCELATION COIL
ROTATION COIL
FIXED ON LEFT SIDE OF BOTTOM PLATE WITH SCREW
IP WIRE ASSY TO VIDEO-SHIELD
3138 103 36290
M709
M703
M705
M704
M701
M706
M702
TO VIDEO M701 WAFER L = 80 mm
FOR "CE" MARK ONLY
F802
M206
M203
M202
WHITE
M204
RED
M205
F801
M503
3138 103 36300
M102
M801
M301
M501
M502
M504
M104
M105
M103
TO GROUND TERMINAL OF AC INLET
CONNECTED TO TCO LOOP WIRE

Alignment locations

MAIN BOARD



Electrical Instructions

0. General

When carry-out the electrical settings in many cases a video signal must be applied to the monitor. A computer with :

- ATI VGA 1024 V6-1.04/PH BETA 4 interface card
- PGA1024 (4822 212 30916)
- PGA1280 (4822 212 30917)

are used as the video signal source. The signal patterns are selected from the "service test software" package, see user guide 4822 727 19896 (ATI1024), or 4822 727 20273 (PGA 1280).

0.1With ATI VGA1024 card:
- Installation instruction for the ATI1024 interface card.
- Place the monitor (if possible) in east-west direction.
- Place the ATI interface card into the computer.
- Select the "vsetup" file from the "utility disk" belonging to the card.
- Select "8 bits" or "16 bits" rom operation depending on your computer type.
- Select "analog monitor"
- Select the monitor type from video ROM BIOS.
- Select "MAGNAVOX CM5000" for the resolutions:

640 x 350 31.5 kHz/70 Hz
640 x 400 31.5 kHz/70 Hz
640 x 480 31.5 kHz/60 Hz
640 x 480 37.8 kHz/60 Hz
800 x 600 35.2 kHz/56 Hz
800 x 600 37.8 KHz/60 Hz
800 x 600 48.0 kHz/72 Hz
1024 x 768 35.5 kHz/87 Hz
1024 x 768 48.4 kHz/60 Hz
1024 x 768 56.0 kHz/70 Hz

- Reboot your computer again.
- Put the floppy disk containing the service test software package in the computer and select the test pattern indicated for the service setting.

0.2 With normal VGA card:
If not using the ATI card during repair or alignment, The service engineer also can use this service test software adapting with normal standard VGA adaptor and using standard VGA mode 640 x 480, 31.5 kHz/60 Hz (only) as signal source.

0.3 AC/DC Measurement:
The measurements for AC waveform and DC figure is based on 640 x 480 31.5 kHz/60 Hz resolution mode with test pattern "gray scale".

1. B+ supply voltage (3144)

- Apply a video signal in the 640 * 480 with 31.5 kHz/60Hz mode.
- Select the "cross-hatch" pattern.
- Set the brightness front control 3402 and the contrast front control 3583 to the minimum position.
- Pre-set trimming potentiometer 3144,3650 in mid-position.
- Connect a dc voltmeter between the joint of capacitor 2153 and ground (common ground).
- Set the B+ trimming potentiometer 3144 so that the reading on the dc voltmeter is 171 V +/- 0.5 Vdc.

2. High-voltage EHT (3650)

- Apply a video signal in the 1024 * 768 with 56 kHz/70Hz mode.
- Select the "cross-hatch" pattern.
- Set the H-width control at minimum position (OSD scale reach to 0).
- Set the brightness front control 3402 and the contrast front control 3583 to the minimum position.
- Turn off the power.
- Connect a "high-voltage voltmeter" between the high-voltage connection of the picture tube and earth.
- Turn on the power.
- Set the EHT trimming potentiometer 3650 so that the "high-voltage voltmeter" reads 25.0 kV +/- 0.3 kV.
- Turn off the power.
- Remove the "high-voltage voltmeter" from the picture tube.
- Turn on the power again.

3. Horizontal raster centering (3553)

- Set the brightness for visible raster.
- Apply a video signal (e.g. crosshatch) in the 1024 * 768 with 56 kHz/70 Hz mode.
- Set H-size (OSD) for 310 mm "raster width".
- Adjust pot-meter 3553 for the correct horizontal center of the whole raster.

4. Focus setting

- Apply a video signal in the 1024 * 768 with 56 kHz/70 Hz mode.
- Select the "@" pattern.
- Set the brightness front control 3402 to mid-position and contrast front control 3583 to maximum position.
- Adjust focus pot-meters (top of LOT) F1 for horizontal focus and F2 for vertical focus so that the picture at 2/3 of the diagonal lines (from center to four corners) of the displayed screen is as sharp as possible.

5. Adjustment of cut-off (OSD control)

- VG2 setting (screen, bottom on the LOT).
- Disconnect video input,set the contrast front control 3583 to minmum position.
- Set the brightness front control 3402 to maximum position.
- Set Vg2 at minimum. ABL (3655) and sub-contrast (3582) at center position. Slowly increase Vg2 voltage until light output at 1.5 Ft-L.
* Apply a video signal in the 1024 * 768 with 56 kHz/70 Hz mode.
- Connect the video input, set brightness front control at mid-position,contrast front at minimum, adjust the cutoff via OSD control (service mode see Page 6 remark) to get brightness output at 0.1-0.2 Ft-L for 9300k (and 6500k) (see **remark).
- Set contrast front control at maximum ,adjust gain to get 9300K (and 6500K).
- Return to main menu and select "save and exit" to store it.

** Remark: color temperature (Gamma=2.7)

9300 K:	X=0.281 +/- 0.02	Rx=0.625	Ry=0.340
	Y=0.311 +/- 0.02	Gx=0.285	Gy=0.605
		Bx=0.150	By=0.065
6500 K :	X=0.313 +/- 0.02		
	Y=0.329 +/- 0.02		

6. Sub-contrast (3582) and ABL (3655)

- Apply a video signal in the 1024 * 768 with 56.4 kH/70H mode.
- Apply white square, brightness front control set to center, and contrast front control at maximum position.
- Adjust sub-contrast (3582) to reach 53 +/- 2 Ft-l.
- Apply full white pattern, adjust ABL (3655) to reach 32 +/- 2 Ft-L.

7. Picture geometry setting (factory pre-set modes)

- Set brightness front control 3402 and the contrast front control 3583 in the mechanical central position.
- Apply a video signal with cross-hatch pattern.
- Apply a video signal in the 1280 * 1024 with 64 kHz/60 Hz mode.

7.1 Horizontal geometry (OSD control)
- Adjust the H-width to 300 mm.
- Adjust the H-phase to center position.

7.2 Vertical geometry (OSD control)
- Adjust vertical size to 225 mm.
- Adjust V-phase to center position.

7.3 Parallelo-gram (3469)
- Adjust parallelo-gram by 3469, such that vertical lines are vertically or symmetrically about center vertical axis.

7.4 Unbalance-pin (3468)
- Adjust the unbalance-pin 3468 ,such that vertical border lines are aligned symmetrically.

7.5 Trapezium distortion (OSD control)
- Adjust the trapezium to get optimal vertical line.

7.6 Pincussion (OSD control)
- Adjust the pincussion to get optimal vertical line.

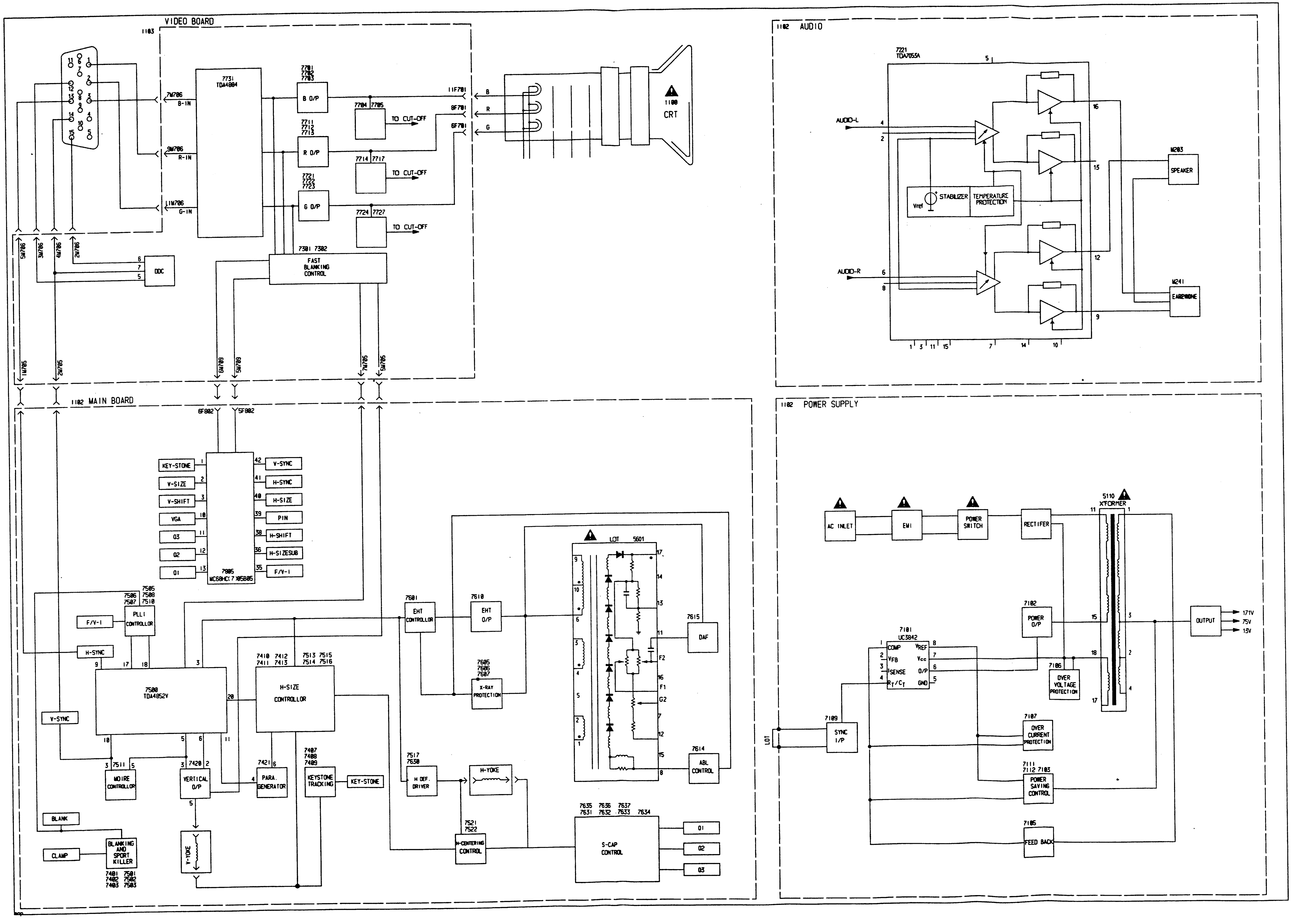
7.7 Tilt (OSD control)
- Adjust picture vertical tilt is less than +/- 0.5mm.

7.8 Store the preset result by selecting the "save and exit" and press " +" to confirm it.

7.9 Repeat the procedure 7.1 - 7.2 and 7.5 - 7.8 until all the preset timing has been adjusted completely.

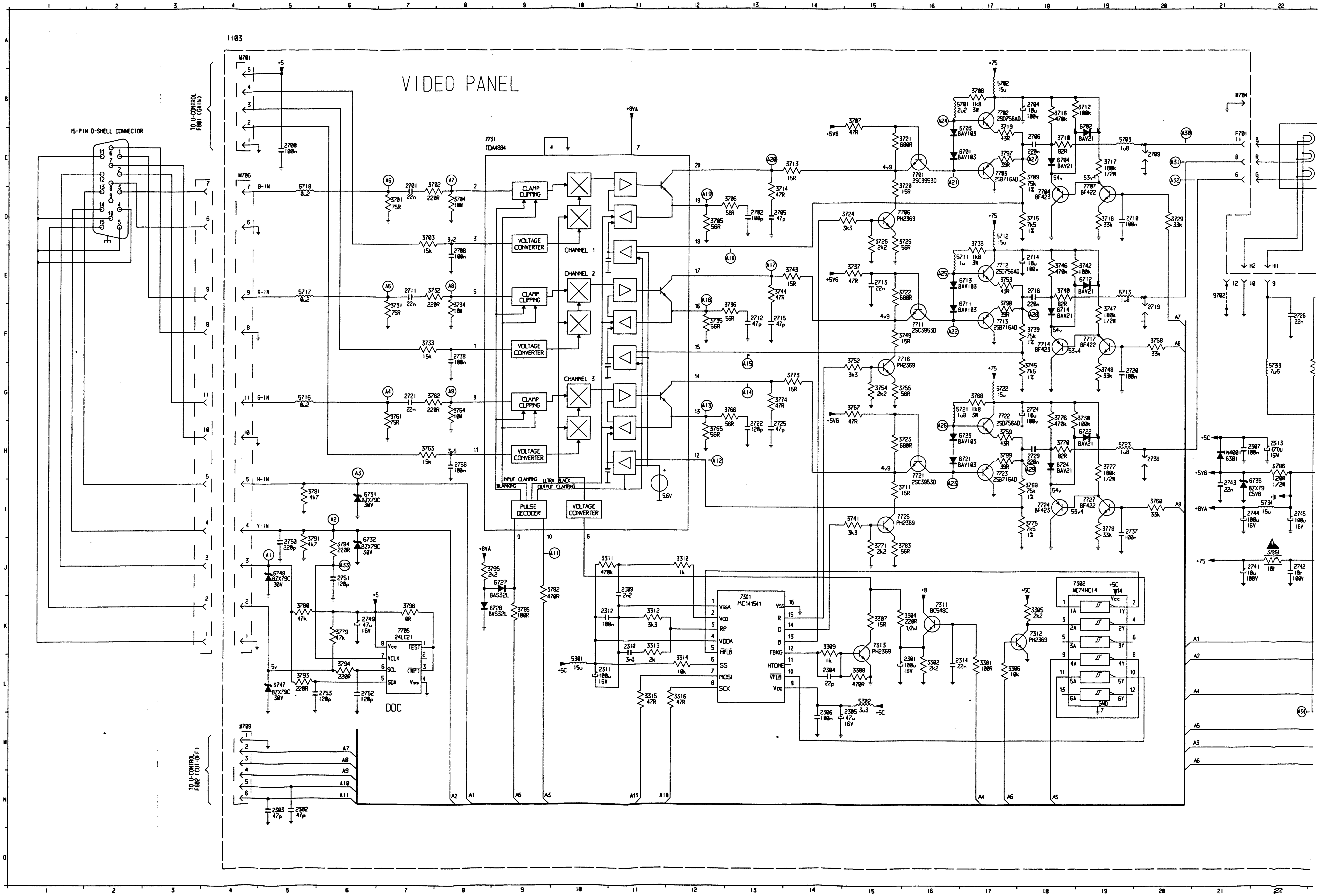
Remark : Factory mode entering

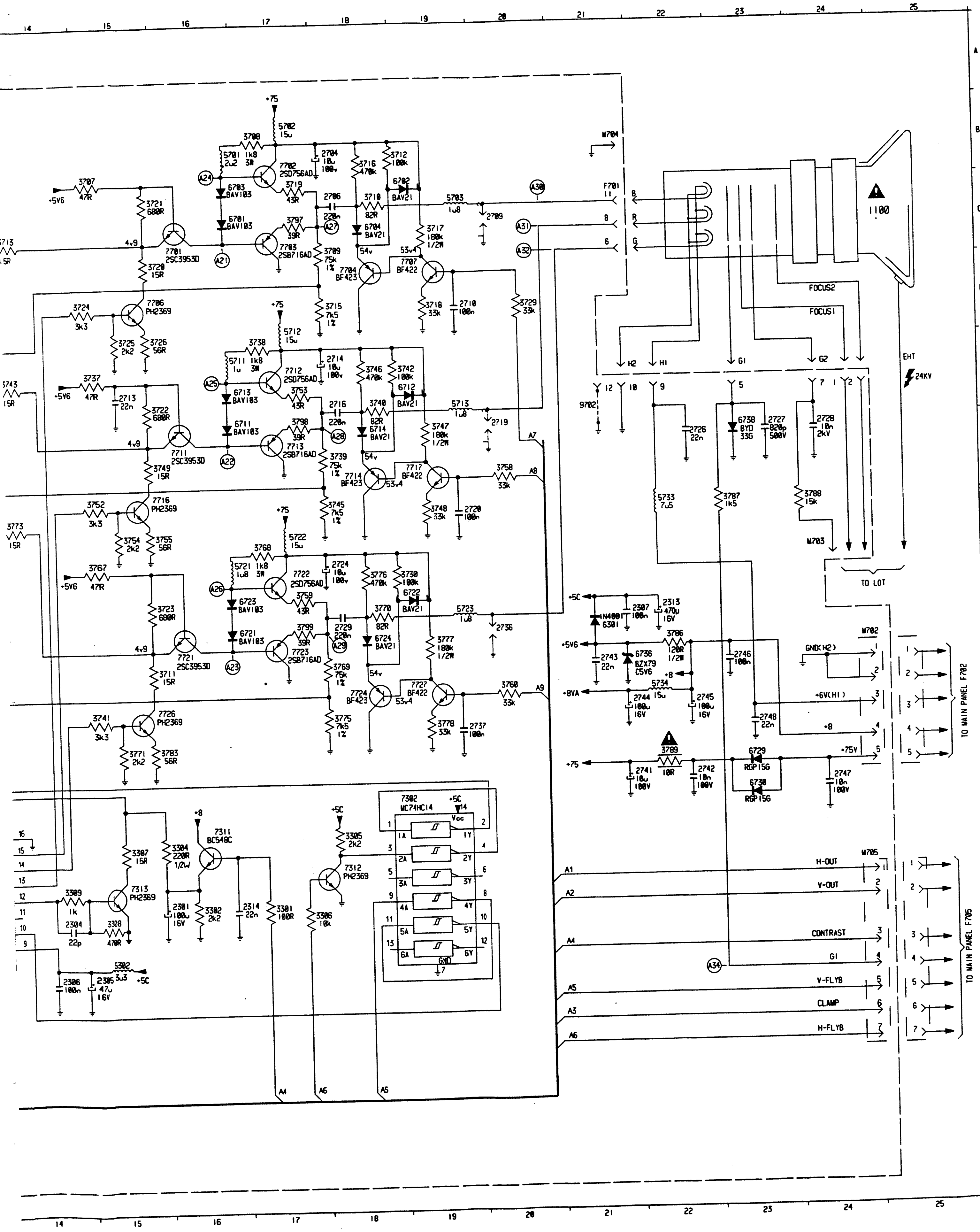
- Turn off monitor.
- Press keys of " + ", " - " at the same time. Turn on the monitor until the monitor is stable.
- Press " ◇ " to Activate OSD menu,select factory mode ,all keys have the same function as in user mode.


VIDEO BOARD
1103
7731
TDA4884
7701
7702
7703
B O/P
7711
7712
7713
R O/P
7721
7722
7723
G O/P
7704 7705
TO CUT-OFF
7714 7717
TO CUT-OFF
7724 7727
TO CUT-OFF
7M706
B-IN
9M706
R-IN
11M706
G-IN
11F701
8F701
6F701
B
R
G
1100
CRT
5M706
3M706
4M706
2M706
DDC
6
7
5
7301 7302
FAST
BLANKING
CONTROL
1M705
2M705
6M709
5M709
7M705
5M705
1102 MAIN BOARD
6F802
5F802
KEY-STONE
V-SIZE
V-SHIFT
VGA
03
02
01
V-SYNC
H-SYNC
H-SIZE
PIN
H-SHIFT
H-SIZESUB
F/V-I
7805
MC68HC(7)05B05
7505
7506 7508
7507 7510
PLLI
CONTROLLOR
F/V-I
H-SYNC
V-SYNC
7500
TDA4852V
7410 7412
7411 7413
7513 7515
7514 7516
H-SIZE
CONTROLLOR
7511
MOIRE
CONTROLLOR
7420
VERTICAL
O/P
7421
PARA.
GENERATOR
7407
7408
7409
KEYSTONE
TRACKING
KEY-STONE
V-YOKE
BLANK
CLAMP
BLANKING
AND
SPORT
KILLER
7401 7501
7402 7502
7403 7503
7601
EHT
CONTROLLOR
7610
EHT
O/P
7605
7606
7607
X-RAY
PROTECTION
LOT 5601
7615
DAF
7614
ABL
CONTROL
F2
F1
G2
7517
7630
H DEF.
DRIVER
H-YOKE
7521
7522
H-CENTERING
CONTROL
7635 7636 7637
7631 7632 7633 7634
S-CAP
CONTROL
01
02
03
1102 AUDIO
7221
TDA7053A
AUDIO-L
AUDIO-R
Vref
STABILIZER
TEMPERATURE
PROTECTION
M203
SPEAKER
M241
EARPHONE
1102 POWER SUPPLY
AC INLET
EMI
POWER
SWITCH
RECTIFER
5110
X'FORMER
7102
POWER
O/P
7101
UC3842
COMP
VREF
VFB
Vcc
ISENSE
O/P
RT/CT
GND
7106
OVER
VOLTAGE
PROTECTION
OUTPUT
171V
75V
13V
LOT
7109
SYNC
I/P
7107
OVER
CURRENT
PROTECTION
7111
7112 7103
POWER
SAVING
CONTROL
7105
FEED BACK

Video panel

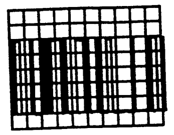
A


VIDEO PANEL
1103
15-PIN D-SHELL CONNECTOR
TO U-CONTROL F801 (GAIN)
TO U-CONTROL F802 (CUT-OFF)
M701
M706
M709
M704
F701
B-IN
R-IN
G-IN
H-IN
V-IN
7731
TDA4884
CLAMP CLIPPING
VOLTAGE CONVERTER
CHANNEL 1
CHANNEL 2
CHANNEL 3
PULSE DECODER
INPUT CLAMPING
BLANKING
ULTRA BLACK
OUTPUT CLAMPING
5.6V
7705
24LC21
DDC
VCC
VCLK
SCL
SDA
TEST
(WP)
VSS
7301
MC141541
VSSA
VCO
RP
VDDA
HFLB
SS
MOSI
SCK
R
G
B
FBKG
HTONE
VFLB
VDD
7302
MC74HC14
GND
7701
2SC3953D
7702
2SD756AD
7703
2SB716AD
7704
BF423
7707
BF422
7706
PH2369
7711
2SC3953D
7712
2SD756AD
7713
2SB716AD
7714
BF423
7717
BF422
7716
PH2369
7721
2SC3953D
7722
2SD756AD
7723
2SB716AD
7724
BF423
7727
BF422
7726
PH2369
7311
BC548C
7312
PH2369
7313
PH2369
6731
BZX79C
30V
6732
BZX79C
30V
6748
BZX79C
30V
6747
BZX79C
30V
6727
BAS32L
6728
BAS32L
6301
1N4001
6736
BZX79
C5V6
+5
+5V6
+8VA
+75
+5C
+8
9702
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
H2
H1

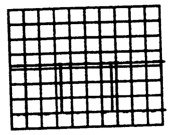

14
15
16
17
18
19
20
21
22
23
24
25
+5V6
3707 47R
3721 680R
7701 2SC3953D
3720 15R
7706 PH2369
3724 3k3
3725 2k2
3726 56R
3708 1k8
5701 2u2
3W
5702 15u
+5
7702 2SD756AD
3719 43R
6703 BAV103
6701 BAV103
7703 2SB716AD
3797 39R
2704 10u 100v
2706 220n
3716 470k
3712 100k
6702 BAV21
3718 82R
6704 BAV21
3709 75k 1%
7704 BF423
3715 7k5 1%
7707 BF422
3717 100k 1/2W
3718 33k
2710 100n
3729 33k
5703 1u8
2709
A21
A24
A27
A30
A31
A32
M704
F701
11
8
6
B
R
G
1100
FOCUS2
FOCUS1
EHT
24KV
H2
H1
G1
G2
12
10
9
5
7
1
2
9702
2726 22n
6738 BYD 33G
2727 820p 500V
2728 10n 2kV
5733 7u5
3787 1k5
3788 15k
M703
TO LOT
3738 1k8
5711 1u
5712 15u
7712 2SD756AD
3753 43R
6713 BAV103
6711 BAV103
7713 2SB716AD
3798 39R
2714 10u 100v
2716 220n
3746 470k
3742 100k
6712 BAV21
3740 82R
6714 BAV21
3739 75k 1%
7714 BF423
3745 7k5 1%
7717 BF422
3747 100k 1/2W
3748 33k
2720 100n
3758 33k
5713 1u8
2719
A7
A8
A22
A25
A28
3737 47R
2713 22n
3722 680R
7711 2SC3953D
3749 15R
7716 PH2369
3752 3k3
3754 2k2
3755 56R
3773 15R
3743 15R
3713 15R
3768
5721 1u8
5722 15u
7722 2SD756AD
3759 43R
6723 BAV103
6721 BAV103
7723 2SB716AD
3799 39R
2724 10u 100v
2729 220n
3776 470k
3730 100k
6722 BAV21
3770 82R
6724 BAV21
3769 75k 1%
7724 BF423
3775 7k5 1%
7727 BF422
3777 100k 1/2W
3778 33k
2737 100n
3760 33k
5723 1u8
2736
A9
A23
A26
A29
3767 47R
3723 680R
7721 2SC3953D
3711 15R
7726 PH2369
3741 3k3
3771 2k2
3783 56R
4v9
54v
53v4
+5C
6301 1N4001
2307 100n
2313 470u 16V
3786 120R 1/2W
6736 BZX79 C5V6
2743 22n
2744 100u 16V
5734 15u
2745 100u 16V
2746 100n
2748 22n
+8VA
+8
+75
2741 10u 100V
3789 10R
2742 10n 100V
6729 RGP15G
6730 RGP15G
2747 10n 100V
M702
GND(H2)
+6V(HI)
+75V
3
4
TO MAIN PANEL F702
7311 BC548C
3304 220R 1/2W
3307 15R
7313 PH2369
3309 1k
2304 22p
3308 470R
2301 100u 16V
3302 2k2
2314 22n
3301 100R
3305 2k2
7312 PH2369
3306 10k
7302 MC74HC14
Vcc
GND
1A
1Y
2A
2Y
3A
3Y
4A
4Y
5A
5Y
6A
6Y
5302 3u3
2306 100n
2305 47u 16V
M705
H-OUT
V-OUT
CONTRAST
G1
V-FLYB
CLAMP
H-FLYB
A1
A2
A3
A4
A5
A6
A34
TO MAIN PANEL F705
13
11
10
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

2301	L16	5301	L10
2302	N 5	5302	L15
2303	N 5	5701	B17
2304	L14	5702	B17
2305	M15	5703	C19
2306	M14	5711	E17
2307	H22	5712	D17
2309	J11	5713	E19
2310	K11	5716	G 5
2311	L10	5717	E 5
2312	K10	5718	D 5
2313	H22	5721	G17
2314	L17	5722	G17
2700	C 5	5723	H19
2701	D 7	5733	G22
2702	D13	5734	I22
2704	B18	6301	H21
2705	D13	6701	C17
2706	C18	6702	C19
2708	E 8	6703	C17
2709	C20	6704	C18
2710	D19	6711	F17
2711	E 7	6712	E19
2712	F13	6713	E17
2713	E15	6714	F18
2714	E18	6721	H17
2715	F13	6722	H19
2716	E18	6723	H17
2719	F20	6724	H18
2720	G19	6727	J 9
2721	G 7	6728	K 9
2722	H13	6729	J23
2724	G18	6730	J23
2725	H13	6731	I 6
2726	F22	6732	J 6
2727	F23	6736	I22
2728	F24	6738	F23
2729	H18	6747	L 5
2736	H20	6748	J 5
2737	I19	7301	K13
2738	F 8	7302	J18
2741	J22	7311	K16
2742	J22	7312	K18
2743	I21	7313	K15
2744	I22	7701	C16
2745	I22	7702	B17
2746	I23	7703	C17
2747	J24	7704	D18
2748	I23	7705	K 7
2749	K 6	7706	D15
2750	J 5	7707	D19
2751	J 6	7711	F16
2752	L 6	7712	E17
2753	L 6	7713	F17
2768	H 8	7714	F18
3301	L17	7716	F15
3302	L16	7717	F19
3304	K16	7721	H16
3305	K18	7722	G17
3306	L17	7723	H17
3307	K15	7724	I18
3308	L15	7726	I15
3309	K14	7727	I19
3310	J12	7731	C 8
3311	J10	9702	E21
3312	K11	F701	E21
3313	K11	F701	C21
3314	L12	F701	C21
3315	L11	F701	C21
3316	L12	F701	E21
3701	D 7	F701	E22
3702	D 7	F701	E23
3703	D 7	F701	E24
3704	D 8	M701	C 4
3705	D12	M701	B 4
3706	D13	M701	B 4
3707	B15	M701	B 4
3708	B17	M701	A 4
3709	C18	M702	H24
3710	C18	M702	J25
3711	I16	M702	J25
3712	B19	M702	I25
3713	C14	M702	I25
3714	D13	M703	G24
3715	D18	M704	B21
3716	B18	M705	K24
3717	C19	M705	L25
3718	D19	M705	L25
3719	C17	M705	M25
3720	D16	M705	M25
3721	C16	M705	M25
3722	E16	M705	L25
3723	H16	M706	J 4
3724	D15	M706	H 4
3725	D15	M706	C 4
3726	D16	M706	D 4
3729	D20	M706	K 4
3730	G19	M706	K 4
3731	F 7	M706	I 4
3732	E 7	M706	H 4
3733	F 7	M706	G 4
3734	F 8	M706	F 4
3735	F12	M706	E 4
3736	F13	M709	N 4
3737	E15	M709	M 4
3738	E17	M709	N 4
3739	F18	M709	N 4
3740	E18	M709	M 4
3741	I15	M709	M 4
3742	E19		
3743	E14		
3744	E13		
3745	G18		
3746	E18		
3747	F19		
3748	G19		
3749	F16		
3752	G15		
3753	E17		
3754	G15		
3755	G16		
3758	F20		
3759	H17		
3760	I20		
3761	G 7		
3762	G 7		
3763	H 7		
3764	G 8		
3765	H12		
3766	G13		
3767	G15		
3768	G17		
3769	I18		
3770	H18		
3771	J15		
3773	G14		
3774	G13		
3775	I18		
3776	G18		
3777	H19		
3778	I19		
3779	K 6		
3780	K 5		
3781	I 5		
3782	J10		
3783	J16		
3784	J 6		
3785	K 9		
3786	H22		
3787	G23		
3788	G24		
3789	J22		
3791	J 5		
3793	L 5		
3794	L 6		
3795	J 9		
3796	K 7		
3797	C17		
3798	F17		
3799	H17		

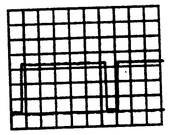
A1 6748-K


1V/div AC
0.1s/div

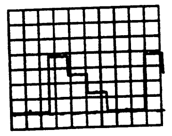
A2 6732-K


1V/div AC
5ms/div

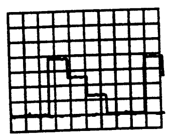
A3 M701-5


1V/div AC
5us/div

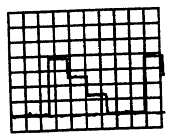
A4 M701-11


0.2V/div AC
5us/div

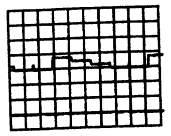
A5 M701-9


0.2V/div AC
5us/div

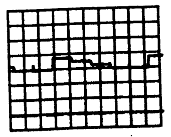
A6 M701-7


0.2V/div AC
5us/div

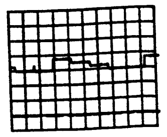
A7 7731-2


1V/div AC
5us/div

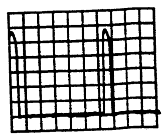
A8 7731-5


1V/div AC
5us/div

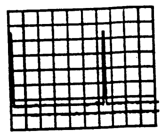
A9 7731-8


1V/div AC
5us/div

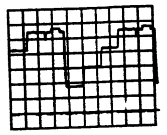
A10 7731-10


1V/div AC
5us/div

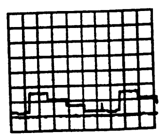
A11 7731-10


1V/div AC
5us/div

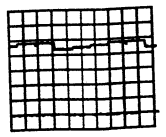
A12 7731-12


1V/div AC
5us/div

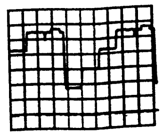
A13 7731-13


1V/div AC
5us/div

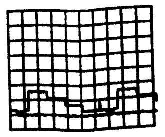
A14 7731-14


1V/div AC
5us/div

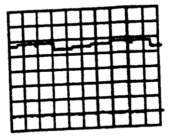
A15 7731-15


1V/div AC
5us/div

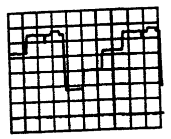
A16 7731-16


1V/div AC
5us/div

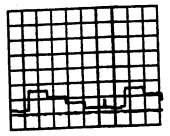
A17 7731-17


1V/div AC
5us/div

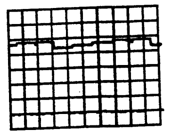
A18 7731-18


1V/div AC
5us/div

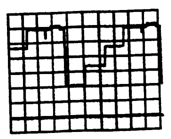
A19 7731-19


1V/div AC
5us/div

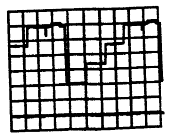
A20 7731-20


1V/div AC
5us/div

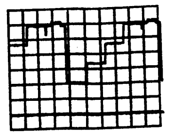
A21 7703-B


10V/div AC
5us/div

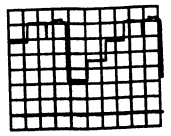
A22 7713-B


10V/div AC
5us/div

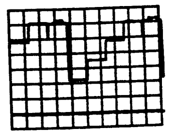
A23 7723-B


10V/div AC
5us/div

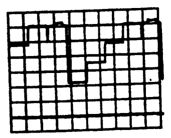
A24 7702-B


10V/div AC
5us/div

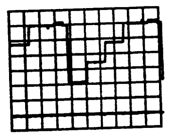
A25 7712-B


10V/div AC
5us/div

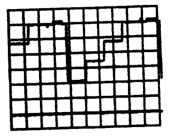
A26 7722-B


10V/div AC
5us/div

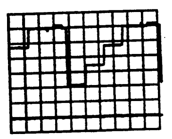
A27 7703-E


10V/div AC
5us/div

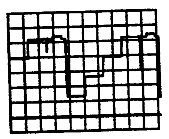
A28 7713-E


10V/div AC
5us/div

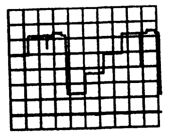
A29 7723-E


10V/div AC
5us/div

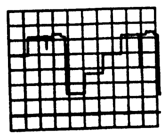
A30 F701-11


10V/div AC
5us/div

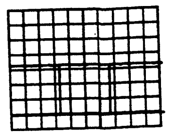
A31 F701-8


10V/div AC
5us/div

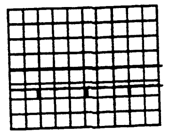
A32 F701-6


10V/div AC
5us/div

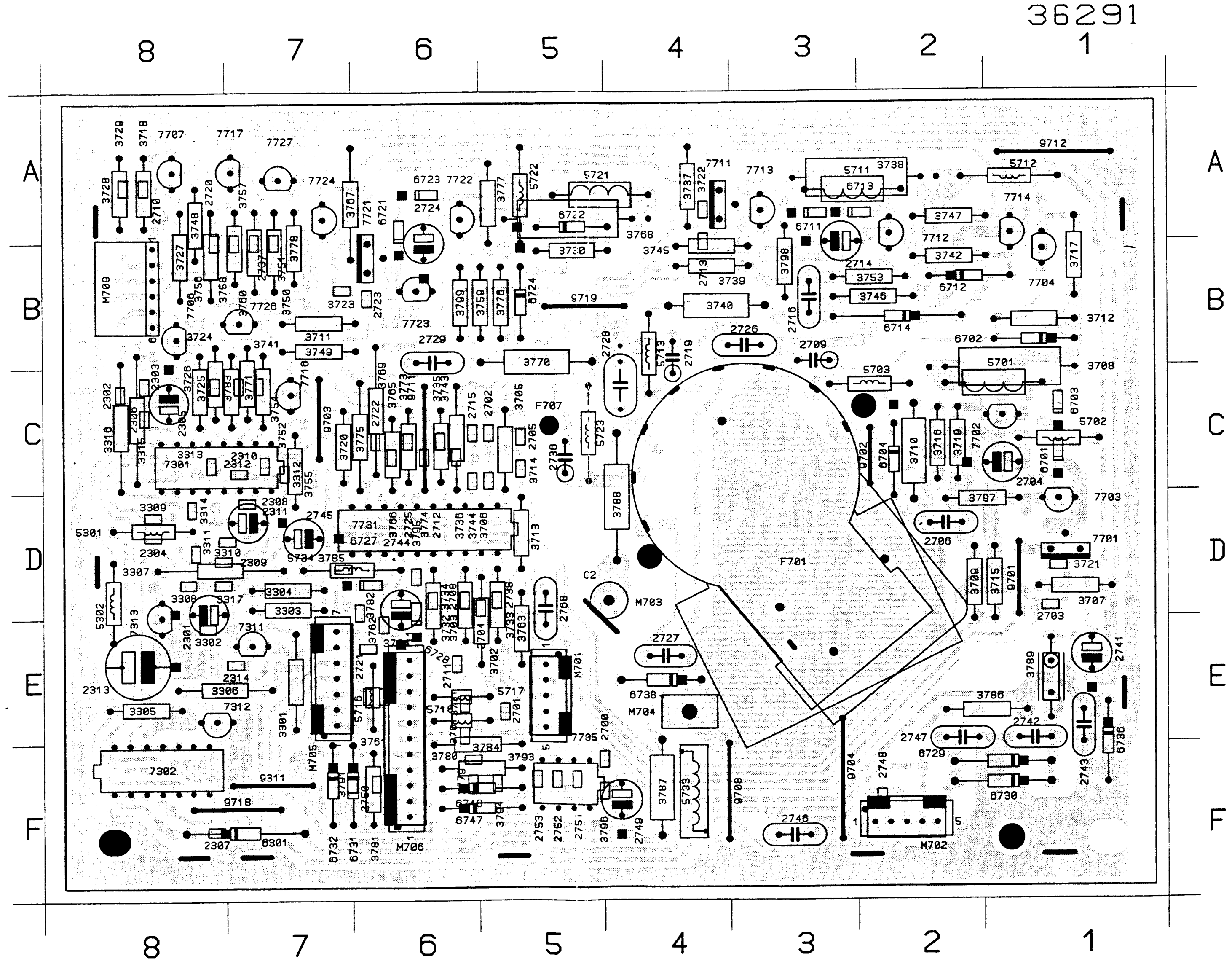
A33 7705-7


1V/div AC
5ms/div

A34 M702-3

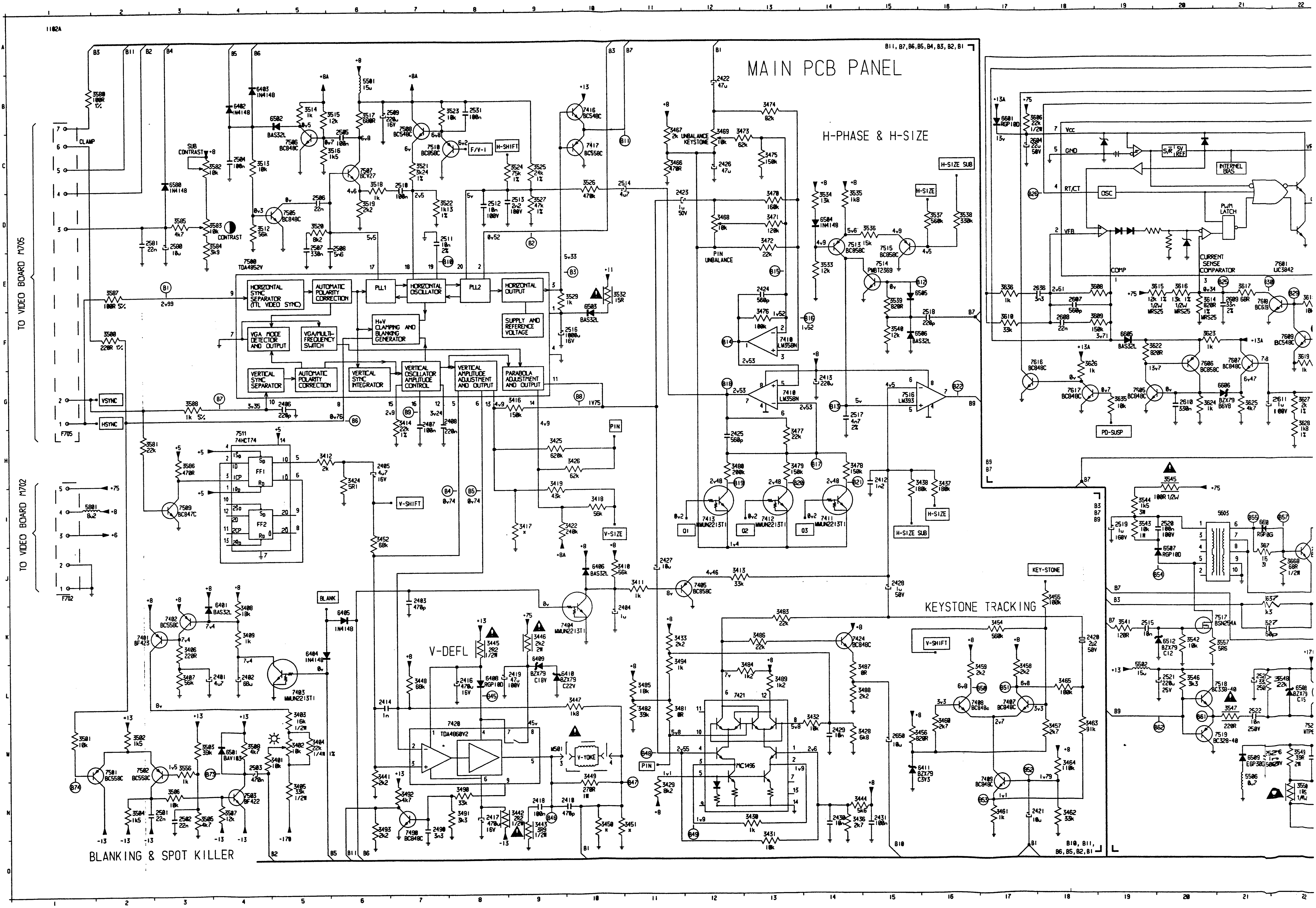

50V/div AC
5ms/div

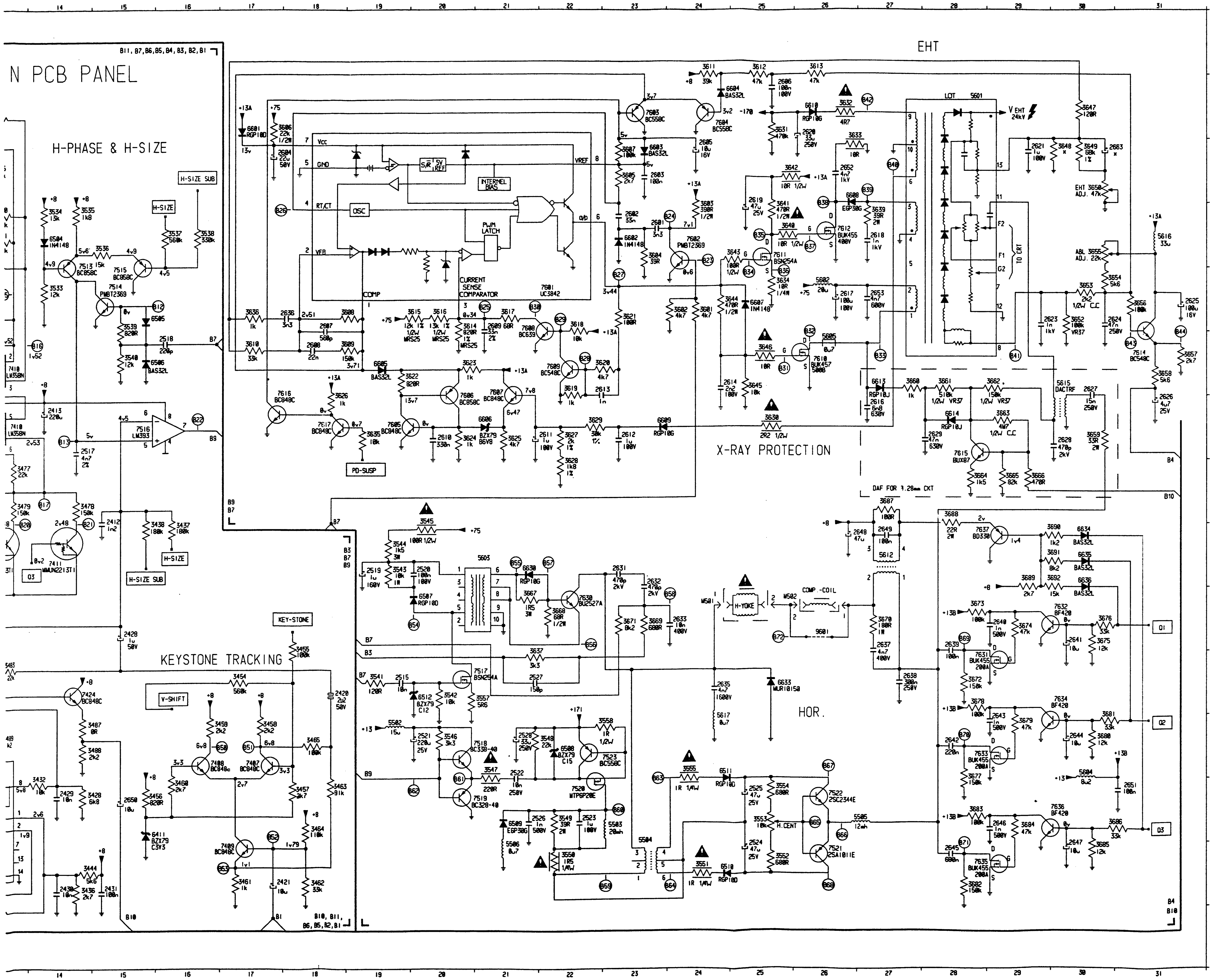
6730	F	2	3777	A	5	3723	B	7	2741	E	1	F701	C	3
6731	F	6	3778	B	7	3724	B	8	2742	E	1	F707	C	5
6732	F	7	3779	F	6	3725	C	8	2743	F	1	M701	E	5
6736	F	1	3780	F	6	3726	C	8	2744	D	6	M702	F	2
6738	E	4	3781	F	6	3727	A	8	2745	D	7	M703	D	4
6747	F	5	3782	E	6	3728	A	8	2746	F	3	M704	E	4
6748	F	5	3783	C	7	3729	A	8	2747	E	2	M705	E	7
7301	C	7	3784	F	5	3730	B	4	2748	F	2	M706	F	6
7302	F	8	3785	D	7	3731	E	6	2749	F	4	M709	B	8
7311	E	7	3786	E	1	3732	D	6	2750	F	6	2301	D	8
7312	E	8	3787	F	4	3733	D	5	2751	F	5	2302	C	8
7313	D	8	3788	D	4	3734	D	6	2752	F	5	2303	C	8
7701	D	1	3789	E	1	3735	C	6	2753	F	5	2304	D	8
7702	C	1	3791	F	6	3736	C	6	2768	E	5	2305	C	8
7703	D	1	3793	F	5	3737	A	4	3301	E	7	2306	C	8
7704	B	1	3794	F	5	3738	A	3	3302	E	8	2307	F	8
7705	F	5	3795	D	6	3739	B	4	3303	D	7	2308	D	7
7706	B	8	3796	F	4	3740	B	3	3304	D	7	2309	D	7
7707	A	8	3797	D	1	3741	B	7	3305	E	8	2310	C	7
7711	A	4	3798	A	3	3742	B	1	3306	E	7	2311	D	7
7712	A	2	3799	B	6	3743	C	6	3307	D	7	2312	C	7
7713	A	3	5301	D	8	3744	C	6	3308	D	8	2313	E	8
7714	A	1	5302	D	8	3745	B	3	3309	D	8	2314	E	7
7716	C	7	5701	C	2	3746	B	3	3310	D	8	2700	F	4
7717	A	7	5702	C	1	3747	A	1	3311	D	8	2701	E	5
7721	B	6	5703	C	2	3748	B	8	3312	C	7	2702	C	5
7722	A	6	5711	A	3	3749	B	6	3313	C	8	2703	D	1
7723	B	6	5712	A	2	3750	A	7	3314	D	8	2704	C	1
7724	A	7	5713	B	4	3751	B	7	3315	D	8	2705	C	5
7726	B	7	5716	E	6	3752	B	7	3316	D	8	2706	D	2
7727	A	7	5717	E	6	3753	B	2	3317	D	8	2708	D	6
7731	D	5	5718	E	6	3754	C	7	3701	F	6	2709	B	3
9311	F	7	5721	A	4	3755	D	7	3702	D	5	2710	A	8
9701	D	1	5722	B	5	3756	A	8	3703	D	6	2711	E	6
9702	C	2	5723	C	5	3757	B	7	3704	D	5	2712	C	6
9703	C	7	5733	F	4	3758	A	7	3705	C	5	2713	B	4
9704	F	3	5734	D	6	3759	B	5	3706	C	5	2714	B	2
9708	F	4	6301	F	7	3760	A	7	3707	D	1	2715	C	6
9711	C	6	6701	C	1	3761	E	6	3708	C	2	2716	B	3
9712	A	1	6702	B	1	3762	E	6	3709	E	2	2719	C	4
9718	F	7	6703	C	1	3763	D	5	3710	D	2	2720	B	8
9719	B	4	6704	D	2	3764	E	6	3711	B	6	2721	E	6
			6711	A	3	3765	C	6	3712	B	1	2722	C	6
			6712	B	1	3766	C	6	3713	D	5	2723	B	6
			6713	A	2	3767	A	6	3714	C	5	2724	A	6
			6714	B	3	3768	A	4	3715	D	1	2725	C	6
			6721	A	6	3769	C	6	3716	C	2	2726	B	3
			6722	A	4	3770	B	5	3717	A	1	2727	E	4
			6723	A	6	3771	C	7	3718	A	8	2728	B	4
			6724	B	5	3773	C	6	3719	C	2	2729	B	6
			6727	D	6	3774	C	6	3720	C	7	2736	C	5
			6728	D	6	3775	C	6	3721	D	1	2737	B	7
			6729	F	2	3776	B	5	3722	A	4	2738	D	5



Deflection

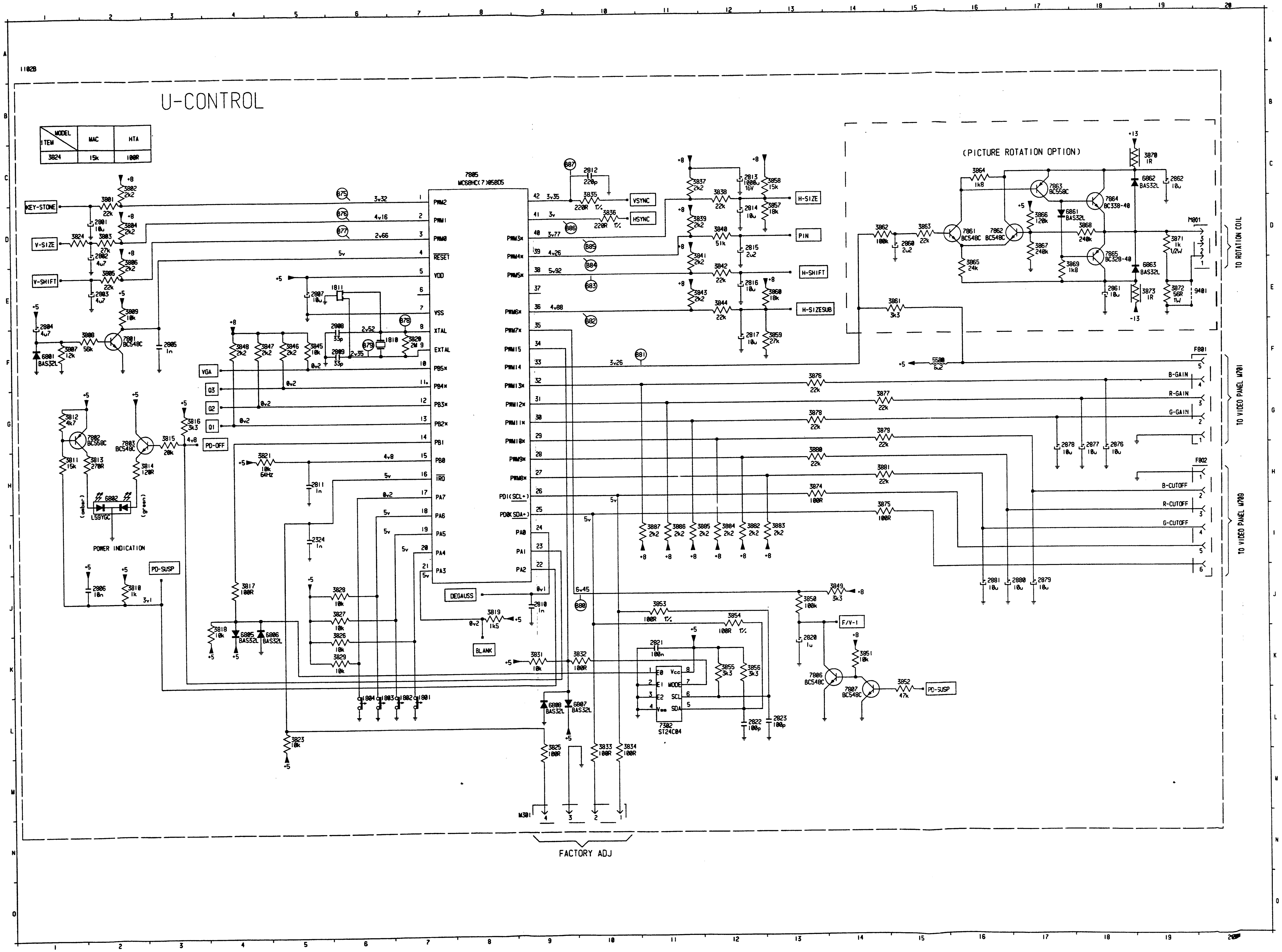
B1


MAIN PCB PANEL
H-PHASE & H-SIZE
KEYSTONE TRACKING
V-DEFL
BLANKING & SPOT KILLER
TO VIDEO BOARD M705
TO VIDEO BOARD M702
HORIZONTAL SYNC SEPARATOR (TTL VIDEO SYNC)
AUTOMATIC POLARITY CORRECTION
PLL1
HORIZONTAL OSCILLATOR
PLL2
HORIZONTAL OUTPUT
VGA MODE DETECTOR AND OUTPUT
VGA/MULTI-FREQUENCY SWITCH
H+V CLAMPING AND BLANKING GENERATOR
SUPPLY AND REFERENCE VOLTAGE
VERTICAL SYNC SEPARATOR
VERTICAL SYNC INTEGRATOR
VERTICAL OSCILLATOR AMPLITUDE CONTROL
VERTICAL AMPLITUDE ADJUSTMENT AND OUTPUT
PARABOLA ADJUSTMENT AND OUTPUT
7500 TDA4852Y
7511 74HCT74
7420 TDA4860V2
7421 MC1496
7410 LM358N
7516 LM393
7601 UC3842
H-SHIFT
V-SHIFT
H-SIZE
H-SIZE SUB
V-SIZE
KEY-STONE
PIN
BLANK
CONTRAST
SUB CONTRAST
CLAMP
VSYNC
HSYNC
F705
F702
V-YOKE
PD-SUSP
Vcc
GND
RT/CT
VFB
COMP
OSC
INTERNAL BIAS
PWM LATCH
CURRENT SENSE COMPARATOR
UNBALANCE KEYSTONE
PIN UNBALANCE

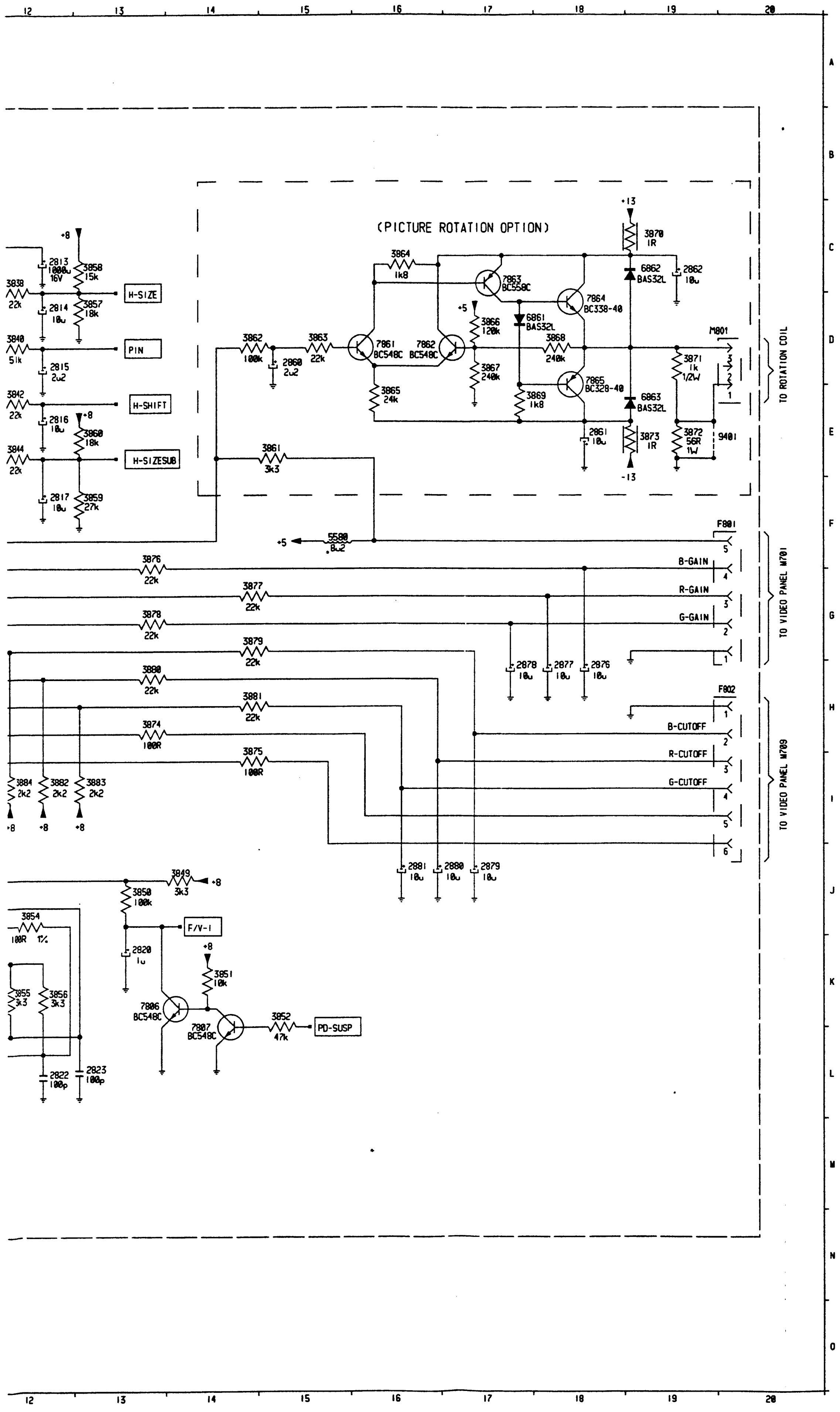


2401	L 4
2402	L 4
2403	J 7
2404	K11
2405	H 6
2406	G 5
2407	G 7
2408	G 8
2410	N10
2412	H15
2413	G14
2414	L 6
2416	L 8
2417	N 8
2418	N 9
2419	L 9
2420	K18
2421	N18
2422	B12
2423	D12
2424	E13
2425	H12
2426	C12
2427	J11
2428	J15
2429	M14
2430	N14
2431	N15
2490	N 7
2501	N 3
2502	N 3
2503	M 4
2504	C 4
2505	C 6
2506	D 5
2507	D 5
2508	D 6
2509	B 7
2510	C 7
2511	D 8
2512	D 8
2513	D 9
2514	C11
2515	K19
2516	F10
2517	G14
2518	F16
2519	I19
2520	I20
2521	L20
2522	L21
2523	M22
2524	N25
2525	M25
2526	M22
2527	K21
2528	L21
2531	B 8
2580	D 3
2581	D 3
2601	D23
2602	D23
2603	C23
2604	C18
2605	C24
2606	B25
2607	E18
2608	F18
2609	E21
2610	G20
2611	G22
2612	G23
2613	F23
2614	F25
2616	G27
2617	E26
2618	D27
2619	C25
2620	B26
2621	C29
2623	E30
2624	E31
2625	E31
2626	G31
2627	F30
2628	G30
2629	G28
2631	I23
2632	I23
2633	J24
2635	K24
2636	E18
2637	J27
2638	K27
2639	J28
2640	J29
2641	J30
2642	L28
2643	L29
2644	L30
2645	N28
2646	M29
2647	N30
2648	I27
2649	I27
2650	M15
2651	M31
2652	C26
2653	E27
2663	C31
3401	M 5
3402	M 5
3403	L 5
3404	M 5
3405	N 5
3406	K 3
3407	L 3
3408	K 4
3409	K 4
3410	J11
3411	J11
3412	H 5
3413	J12
3414	G 7
3416	G 9
3417	I 9
3418	I10
3419	I 9
3422	I10
3424	H 6
3425	H 9
3426	H10
3428	M15
3429	N11
3430	N13
3431	O13
3432	L14
3433	K11
3436	N14
3437	I16
3438	I16
3441	M 6
3442	N 9
3443	N 9
3444	N14
3445	K 8
3446	K 9
3447	L10
3448	L 7
3449	N10
3450	N10
3451	N11
3452	I 6
3454	K17
3455	J18
3456	M16
3457	M18
3458	L17
3459	L17
3460	M16
3461	N17
3462	N18
3463	M18
3464	M18
3465	L18
3466	C11
3467	C11
3468	D12
3469	C12
3470	D13
3471	D13
3472	D13
3473	C13
3474	B13
3475	C13
3476	F13
3477	H13
3478	H14
3479	H13
3480	H12
3481	L11
3482	L11
3483	K13
3484	L13
3485	L11
3486	K13
3487	L15
3488	L15
3489	L13
3490	N 8
3491	N 8
3492	N 7
3493	N 6
3494	L11
3500	F 2
3501	M 1
3502	M 2
3503	M 3
3504	N 2
3505	N 3
3506	N 3
3507	N 4
3508	M 4
3512	D 4
3513	C 4
3514	B 5
3515	B 6
3516	C 6
3517	B 6
3518	C 6
3519	D 6
3520	D 5
3521	C 7
3522	D 8
3523	B 8
3524	C 9
3525	C 9
3526	C10
3527	D 9
3529	E10
3532	E10
3533	E14
3534	D14
3535	D14
3536	D15
3537	D16
3538	D16
3539	E15
3540	F15
3541	K19
3542	K20
3543	I19
3544	I19
3545	H20
3546	L20
3547	L21
3548	L22
3549	M22
3550	N22
3551	N24
3552	N25
3553	M25
3554	M25
3555	L24
3556	M 3
3557	K21
3558	L23
3580	B 2
3581	H 3
3582	C 4
3583	D 4
3584	D 4
3585	D 3
3586	H 3
3587	E 2
3588	G 3
3601	E24
3602	E24
3603	D24
3604	D23
3605	C23
3606	B18
3607	C23
3608	E19
3609	F19
3610	F17
3611	A24
3612	A25
3613	A26
3614	E20
3615	E20
3616	E20
3617	E21
3618	E22
3619	F22
3620	F23
3621	E23
3622	F20
3623	F20
3624	G20
3625	G21
3626	G18
3627	G22
3628	H22
3629	G22
3630	G25
3631	B25
3632	B26
3633	B26
3634	E25
3635	G19
3636	E17
3637	J21
3639	D27
3640	D25
3641	D25
3642	C25
3643	D25
3644	E25
3645	F25
3646	F25
3647	B30
3648	C30
3649	C30
3650	C30
3652	E30
3653	E30
3654	E31
3655	D30
3656	E31
3657	F31
3658	F31
3659	G30
3660	F27
3661	F28
3662	F29
3663	G29
3664	H28
3665	H29
3666	H29
3667	J21
3668	J22
3669	J23
3670	J27
3671	J23
3672	K28
3673	J28
3674	J29
3675	J30
3676	J30
3677	M28
3678	K28
3679	L29
3680	L30
3681	L30
3682	N28
3683	M28
3684	M29
3685	N30
3686	M31
3687	H27
3688	H28
3689	I29
3690	I30
3691	I30
3692	I30
5501	B 6
5502	L19
5503	M23
5504	M23
5505	M27
5506	N21
5601	B28
5602	E26
5603	I21
5604	L30
5605	F26
5612	I27
5615	F30
5616	D31
5617	L24
5801	I 1
6401	K 4
6402	B 4
6403	B 4
6404	K 5
6405	K 6
6406	J10
6408	L 8
6409	L 9
6410	L10
6411	M16
6501	M 4
6502	B 5
6503	E10
6504	D14
6505	E16
6506	F16
6507	J20
6508	L22
6509	M21
6510	N24
6511	L24
6512	K20
6580	C 3
6601	B17
6602	D23
6603	C23
6604	B25
6605	F19
6606	G21
6607	E25
6608	C26
6609	G23
6610	B26
6613	F27
6614	G28
6630	I21
6633	K25
6634	I30
6635	I30
6636	I30
7401	K 2
7402	K 3
7403	L 5
7404	K 9
7405	J12
7407	L17
7408	L16
7409	N17
7410	F13
7410	G13
7411	I14
7412	I13
7413	I12
7416	B10
7417	C10
7420	M 7
7421	L12
7424	K14
7490	N 7
7500	E 4
7501	M 2
7502	M 2
7503	N 4
7505	D 5
7506	C 5
7507	C 6
7508	B 7
7509	I 3
7510	C 7
7511	H 4
7513	D15
7514	E15
7515	D15
7516	G15
7517	K20
7518	L20
7519	M20
7520	M22
7521	N26
7522	M26
7523	L23
7601	E22
7602	D24
7603	B23
7604	B24
7605	G19
7606	G20
7607	F21
7608	E21
7609	F22
7610	F26
7611	D25
7612	D26
7614	F31
7615	G28
7616	F18
7617	G18
7630	J22
7631	K29
7632	J30
7633	L29
7634	K30
7635	N29
7636	M30
7637	I29
9601	J26
F702	J 1
F702	J 1
F702	I 1
F702	I 1
F702	H 1
F705	H 1
F705	G 1
F705	D 1
F705	C 1
F705	C 1
F705	C 1
F705	B 1
M501	M 9
M501	M10
M501	J24
M501	J25
M502	J25
M502	J26

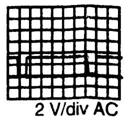
B2

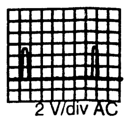

U-CONTROL
(PICTURE ROTATION OPTION)
7805 MC68HC(7)05BD5
KEY-STONE
V-SIZE
V-SHIFT
VSYNC
HSYNC
H-SIZE
PIN
H-SHIFT
H-SIZESUB
VGA
03
02
01
PD-OFF
PD-SUSP
DEGAUSS
BLANK
F/V-1
POWER INDICATION
LS9YGC
(amber)
(green)
7302 ST24C04
TO ROTATION COIL
TO VIDEO PANEL W701
TO VIDEO PANEL W709
B-GAIN
R-GAIN
G-GAIN
B-CUTOFF
R-CUTOFF
G-CUTOFF
F801
F802
M801
M301
9401
FACTORY ADJ
1102B
PWM2
PWM1
PWM0
RESET
VDD
VSS
XTAL
EXTAL
PB5
PB4
PB3
PB2
PB1
PB0
IRQ
PA7
PA6
PA5
PA4
PA3
PWM3
PWM4
PWM5
PWM6
PWM7
PWM15
PWM14
PWM13
PWM12
PWM11
PWM10
PWM9
PWM8
PD1(SCL+)
PD0(SDA+)
PA0
PA1
PA2
7801 BC548C
7802 BC558C
7803 BC548C
7806 BC548C
7807 BC548C
7861 BC548C
7862 BC548C
7863 BC558C
7864 BC338-40
7865 BC328-40
6801 BAS32L
6805 BAS32L
6806 BAS32L
6807 BAS32L
6808 BAS32L
6861 BAS32L
6862 BAS32L
6863 BAS32L
1801
1802
1803
1804
1810
1811

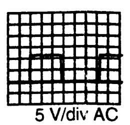
MODEL / ITEM	MAC	HTA
3824	15k	100R

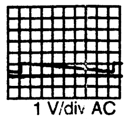

12
13
14
15
16
17
18
19
20
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
(PICTURE ROTATION OPTION)
+8
2813 1000u 16V
3858 15k
3838 22k
2814 10u
3857 18k
H-SIZE
3840 51k
2815 2u2
PIN
3842 22k
2816 10u
+8
3860 18k
H-SHIFT
3844 22k
H-SIZESUB
2817 10u
3859 27k
3862 100k
2860 2u2
3863 22k
7861 BC548C
7862 BC548C
3865 24k
3864 1k8
3861 3k3
7863 BC558C
+5
3866 120k
3867 240k
6861 BAS32L
3868 240k
3869 1k8
7864 BC338-40
7865 BC328-40
+13
3870 1R
6862 BAS32L
2862 10u
6863 BAS32L
2861 10u
3873 1R
-13
3871 1k 1/2W
3872 56R 1W
9401
M801
3
2
1
TO ROTATION COIL
+5
5580 8u2
F801
5
B-GAIN
4
R-GAIN
3
G-GAIN
2
1
TO VIDEO PANEL M701
3876 22k
3877 22k
3878 22k
3879 22k
3880 22k
3881 22k
3874 100R
3875 100R
2878 10u
2877 10u
2876 10u
F802
1
B-CUTOFF
2
R-CUTOFF
3
G-CUTOFF
4
5
6
TO VIDEO PANEL M709
3884 2k2
3882 2k2
3883 2k2
+8
+8
+8
2881 10u
2880 10u
2879 10u
3849 3k3
+8
3850 100k
F/V-I
2820 1u
+8
3851 10k
3854 100R 1%
3855 3k3
3856 3k3
7806 BC548C
7807 BC548C
3852 47k
PD-SUSP
2822 100p
2823 100p

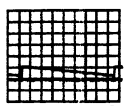
1801	L 7	M801	D19
1802	L 7	M801	D19
1803	L 6	M801	E19
1804	L 6		
1810	F 7		
1811	E 6		
2324	I 5		
2801	D 2		
2802	D 2		
2803	E 2		
2804	E 1		
2805	F 3		
2806	J 2		
2807	E 5		
2808	F 6		
2809	F 6		
2810	J 9		
2811	H 5		
2812	C10		
2813	C12		
2814	D12		
2815	D12		
2816	E12		
2817	F12		
2820	K13		
2821	K11		
2822	L12		
2823	L13		
2860	D15		
2861	E18		
2862	C19		
2876	H18		
2877	H18		
2878	H17		
2879	J17		
2880	J17		
2881	J16		
3801	C 2		
3802	C 2		
3803	D 2		
3804	D 2		
3805	E 2		
3806	D 2		
3807	F 1		
3808	F 2		
3809	E 2		
3810	J 2		
3811	H 1		
3812	G 1		
3813	H 2		
3814	H 3		
3815	G 3		
3816	G 3		
3817	J 4		
3818	J 4		
3819	J 8		
3820	F 7		
3821	H 4		
3823	L 5		
3824	D 1		
3825	L 9		
3826	K 6		
3827	J 6		
3828	J 6		
3829	K 6		
3831	K 9		
3832	K10		
3833	L10		
3834	L10		
3835	C10		
3836	D10		
3837	C12		
3838	C12		
3839	D12		
3840	D12		
3841	D12		
3842	E12		
3843	E12		
3844	E12		
3845	F 5		
3846	F 5		
3847	F 5		
3848	F 4		
3849	J14		
3850	J13		
3851	K14		
3852	K15		
3853	J11		
3854	J12		
3855	K12		
3856	K12		
3857	D13		
3858	C13		
3859	F13		
3860	E13		
3861	E15		
3862	D14		
3863	D15		
3864	C16		
3865	E16		
3866	D17		
3867	D17		
3868	D18		
3869	E18		
3870	C19		
3871	D19		
3872	E19		
3873	E19		
3874	H13		
3875	I14		
3876	F13		
3877	G14		
3878	G13		
3879	G14		
3880	H13		
3881	H14		
3882	I12		
3883	I13		
3884	I12		
3885	I12		
3886	I11		
3887	I11		
5580	F15		
6801	F 1		
6802	H 2		
6805	J 4		
6806	K 5		
6807	L10		
6808	L 9		
6861	D18		
6862	C19		
6863	E19		
7302	L11		
7801	F 2		
7802	G 2		
7803	G 2		
7805	C 8		
7806	K13		
7807	L14		
7861	D16		
7862	D16		
7863	C17		
7864	D18		
7865	D18		
9401	E20		
F801	G19		
F801	G19		
F801	G19		
F801	F19		
F801	F19		
F802	I19		
F802	I19		
F802	I19		
F802	H19		
F802	H19		
F802	H19		
M301	N 9		
M301	N 9		
M301	N10		
M301	M10		

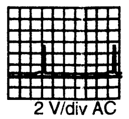
B1 7500-9

2 V/div AC
5 uS/div

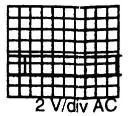
B2 7500-2

2 V/div AC
5 uS/div

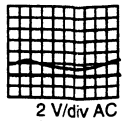
B3 7500-3

5 V/div AC
5 uS/div

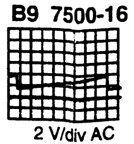
B4 7500-5

1 V/div AC
2 mS/div

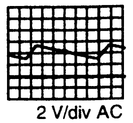
B5 7500-6

1 V/div AC
2 mS/div

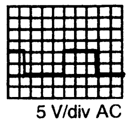
B6 7500-8

2 V/div AC
5 uS/div

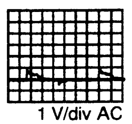
B7 7500-10

2 V/div AC
2 mS/div

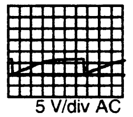
B8 7500-11

2 V/div AC
2 mS/div

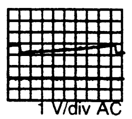
B9 7500-16

2 V/div AC
2 mS/div

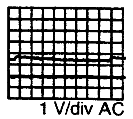
B10 7500-19

2 V/div AC
5 uS/div

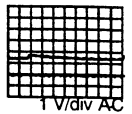
B11 7416-E

5 V/div AC
5 uS/div

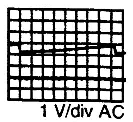
B12 7514-B

1 V/div AC
5 uS/div

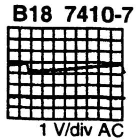
B13 7513-C

5 V/div AC
5 uS/div

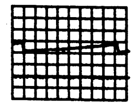
B14 7410-1

1 V/div AC
2 mS/div

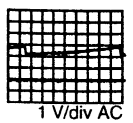
B15 7410-2

1 V/div AC
2 muS/div

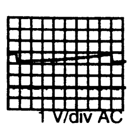
B16 7410-3

1 V/div AC
2 mS/div

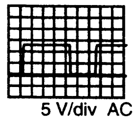
B17 7410-6

1 V/div AC
2 mS/div

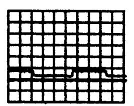
B18 7410-7

1 V/div AC
2 mS/div

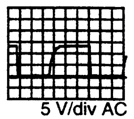
B19 7413-C

1 V/div AC
2 mS/div

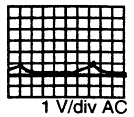
B20 7412-C

1 V/div AC
2 mS/div

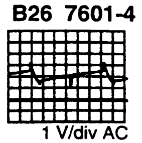
B21 7411-C

1 V/div AC
2 mS/div

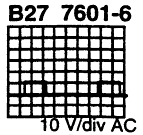
B22 7516-7

5 V/div AC
5 uS/div

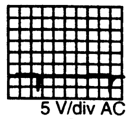
B23 7602-B

1 V/div AC
5 uS/div

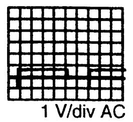
B24 7602-C

5 V/div AC
5 uS/div

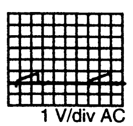
B25 7601-3

1 V/div AC
5 uS/div

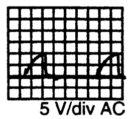
B26 7601-4

1 V/div AC
5 uS/div

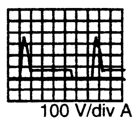
B27 7601-6

10 V/div AC
5 uS/div

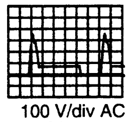
B28 7609-B

5 V/div AC
5 uS/div

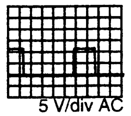
B29 7609-C

1 V/div AC
5 uS/div

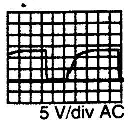
B30 7608-C

1 V/div AC
5 uS/div

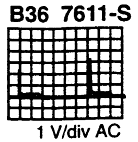
B31 7610-G

5 V/div AC
5 uS/div

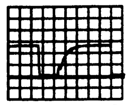
B32 7610-D

100 V/div AC
5 uS/div

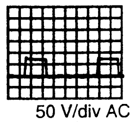
B33 5601-1

100 V/div AC
5 uS/div

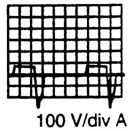
B34 7611-G

5 V/div AC
5 uS/div

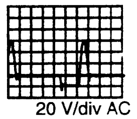
B35 7611-D

5 V/div AC
5 uS/div

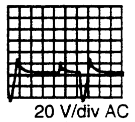
B36 7611-S

1 V/div AC
5 uS/div

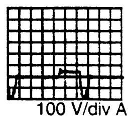
B37 7612-G

5 V/div AC
5 uS/div

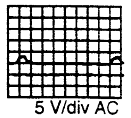
B38 7612-D

50 V/div AC
5 uS/div

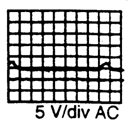
B39 5601-3

100 V/div AC
5 uS/div

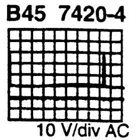
B40 5601-6

20 V/div AC
5 uS/div

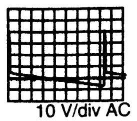
B41 5601-8

20 V/div AC
5 uS/div

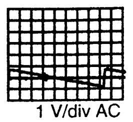
B42 5601-9

100 V/div AC
5 uS/div

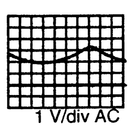
B43 7614-B

5 V/div AC
2 mS/div

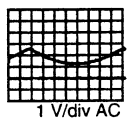
B44 7614-E

5 V/div AC
2 mS/div

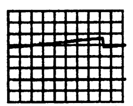
B45 7420-4

10 V/div AC
2 mS/div

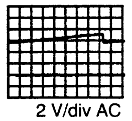
B46 7420-5

10 V/div AC
2 mS/div

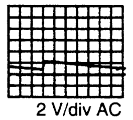
B47 M501-4

1 V/div AC
2 mS/div

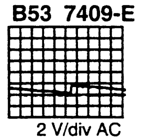
B48 7421-4

1 V/div AC
2 mS/div

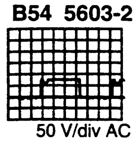
B49 7421-3

1 V/div AC
2 mS/div

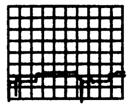
B50 7408-C

2 V/div AC
2 mS/div

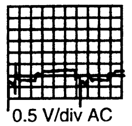
B51 7407-C

2 V/div AC
2 mS/div

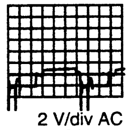
B52 7409-B

2 V/div AC
2 mS/div

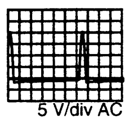
B53 7409-E

2 V/div AC
2 mS/div

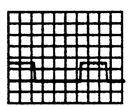
B54 5603-2

50 V/div AC
5 uS/div

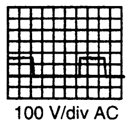
B55 5603-6

5 V/div AC
5 uS/div

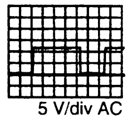
B56 5603-7

0.5 V/div AC
5 uS/div

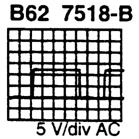
B57 7603-B

2 V/div AC
5 uS/div

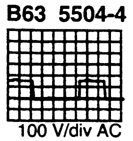
B58 2632-2633

5 V/div AC
5 uS/div

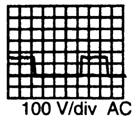
B59 5504-1

100 V/div AC
5 uS/div

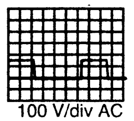
B60 5503-D

100 V/div AC
5 uS/div

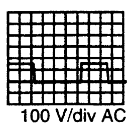
B61 7518-E

5 V/div AC
5 uS/div

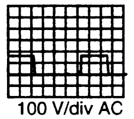
B62 7518-B

5 V/div AC
5 uS/div

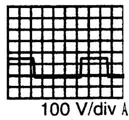
B63 5504-4

100 V/div AC
5 uS/div

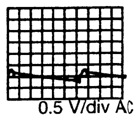
B64 5504-6

100 V/div AC
5 uS/div

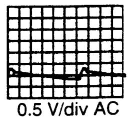
B65 7522-B

100 V/div AC
5 uS/div

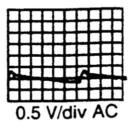
B66 7522-E

100 V/div AC
5 uS/div

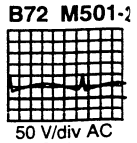
B67 7522-C

100 V/div AC
5 uS/div

B68 7521-C

100 V/div AC
5 uS/div

B69 7631-D

0.5 V/div AC
5 uS/div

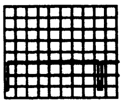
B70 7633-D

0.5 V/div AC
5 uS/div

B71 7635-D

0.5 V/div AC
5 uS/div

B72 M501-2

50 V/div AC
5 uS/div

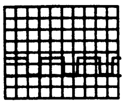
Deflection

B73 7503-C



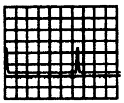
10 V/div AC
2 mS/div

B82 7805-36



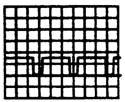
5 V/div AC
5 uS/div

B74 7501-B



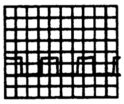
2 V/div AC
5 uS/div

B83 7805-38



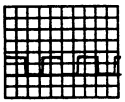
5 V/div AC
5 uS/div

B75 7805-1



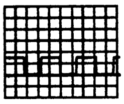
5 V/div AC
5 uS/div

B84 7805-39



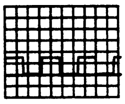
5 V/div AC
5 uS/div

B76 7805-2



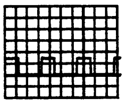
5 V/div AC
5 uS/div

B85 7805-40



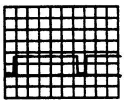
5 V/div AC
5 uS/div

B77 7805-3



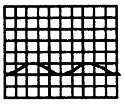
5 V/div AC
5 uS/div

B86 7805-41



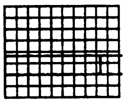
2 V/div AC
5 uS/div

B78 7805-8



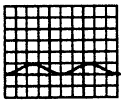
5 V/div AC
50 nS/div

B87 7805-42



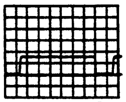
2 V/div AC
2 mS/div

B79 7805-9



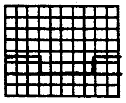
5 V/div AC
50 nS/div

B80 7805-35



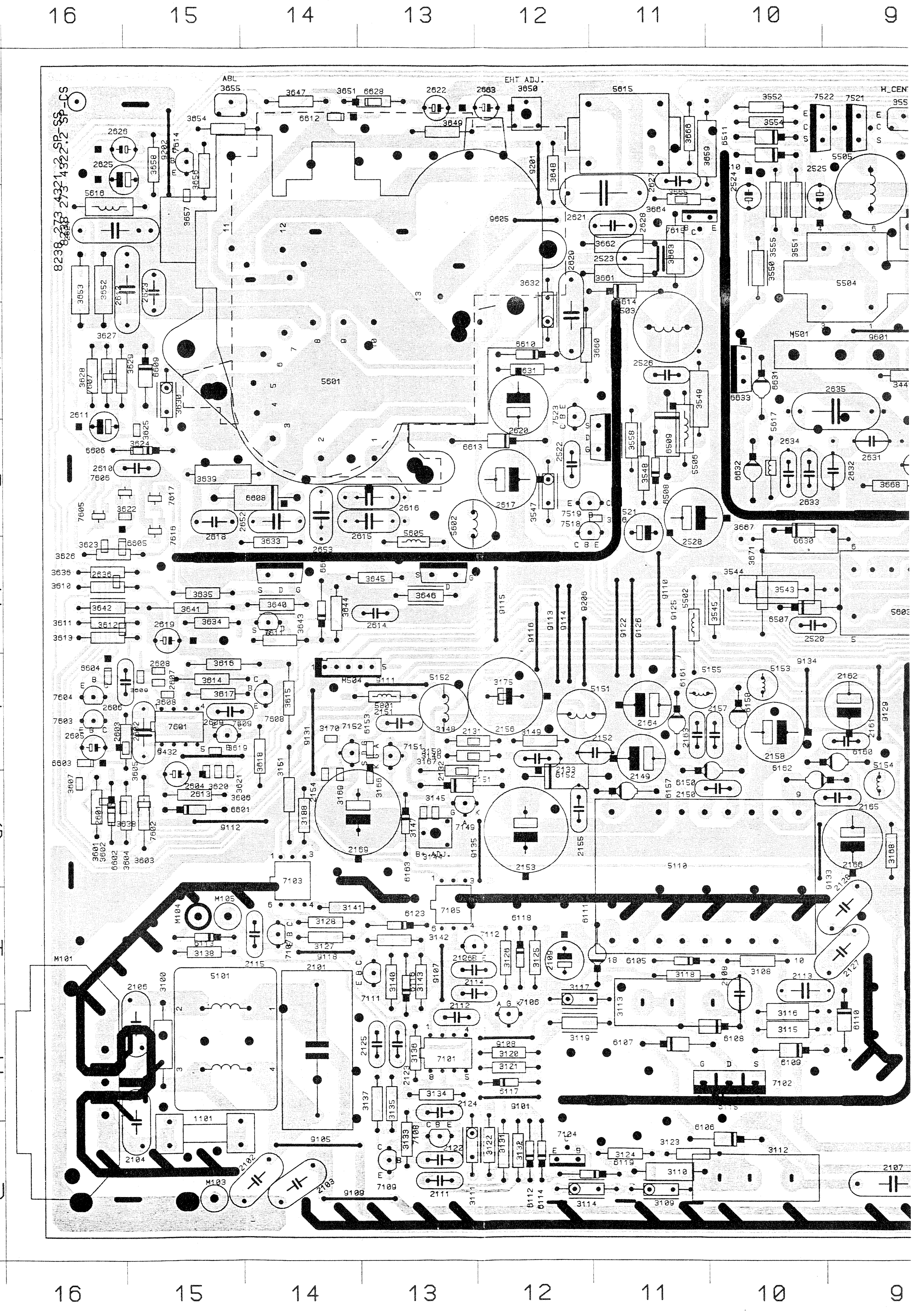
5 V/div AC
2 uS/div

B81 7805-33

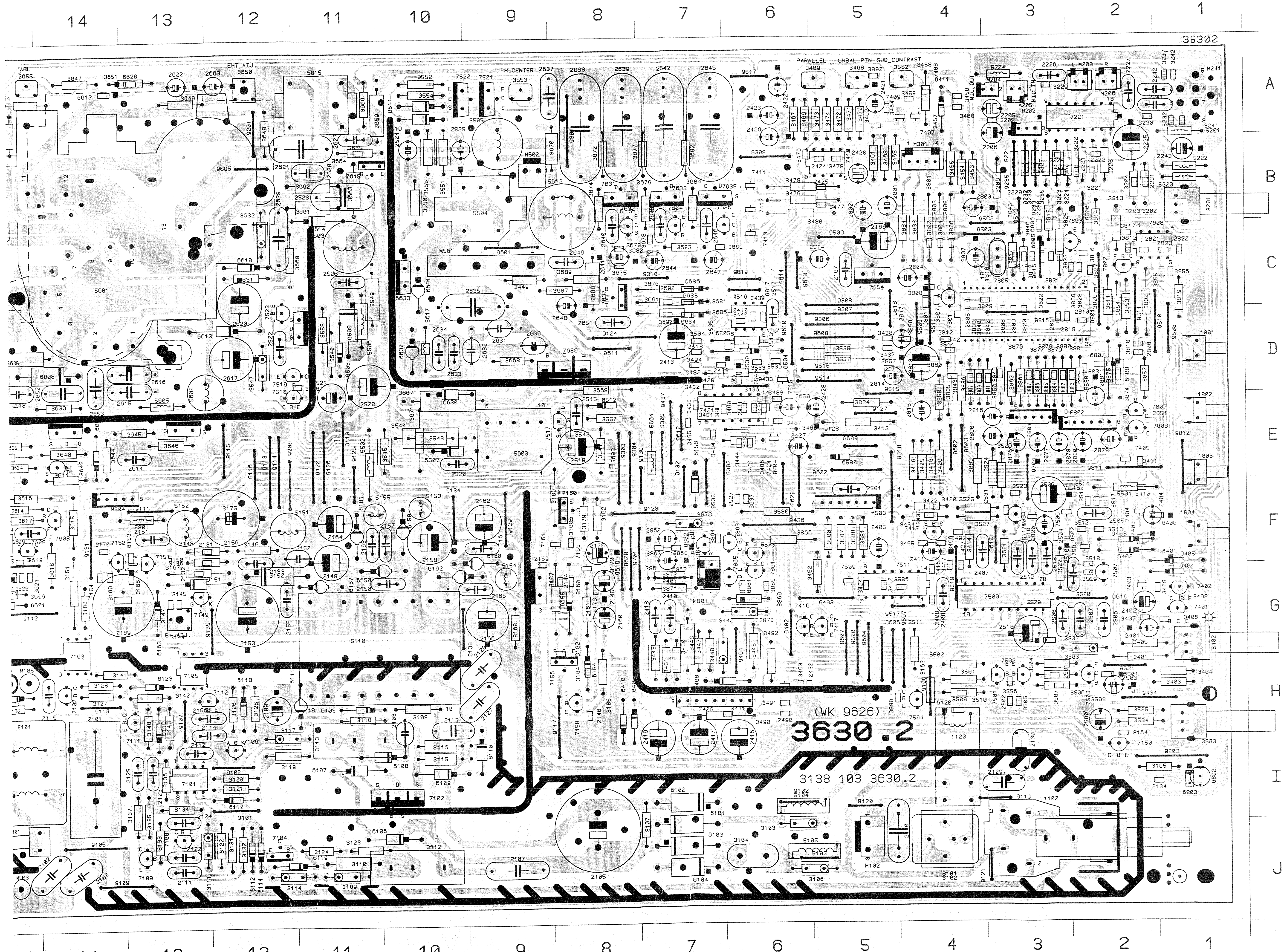


5 V/div AC
2 uS/div

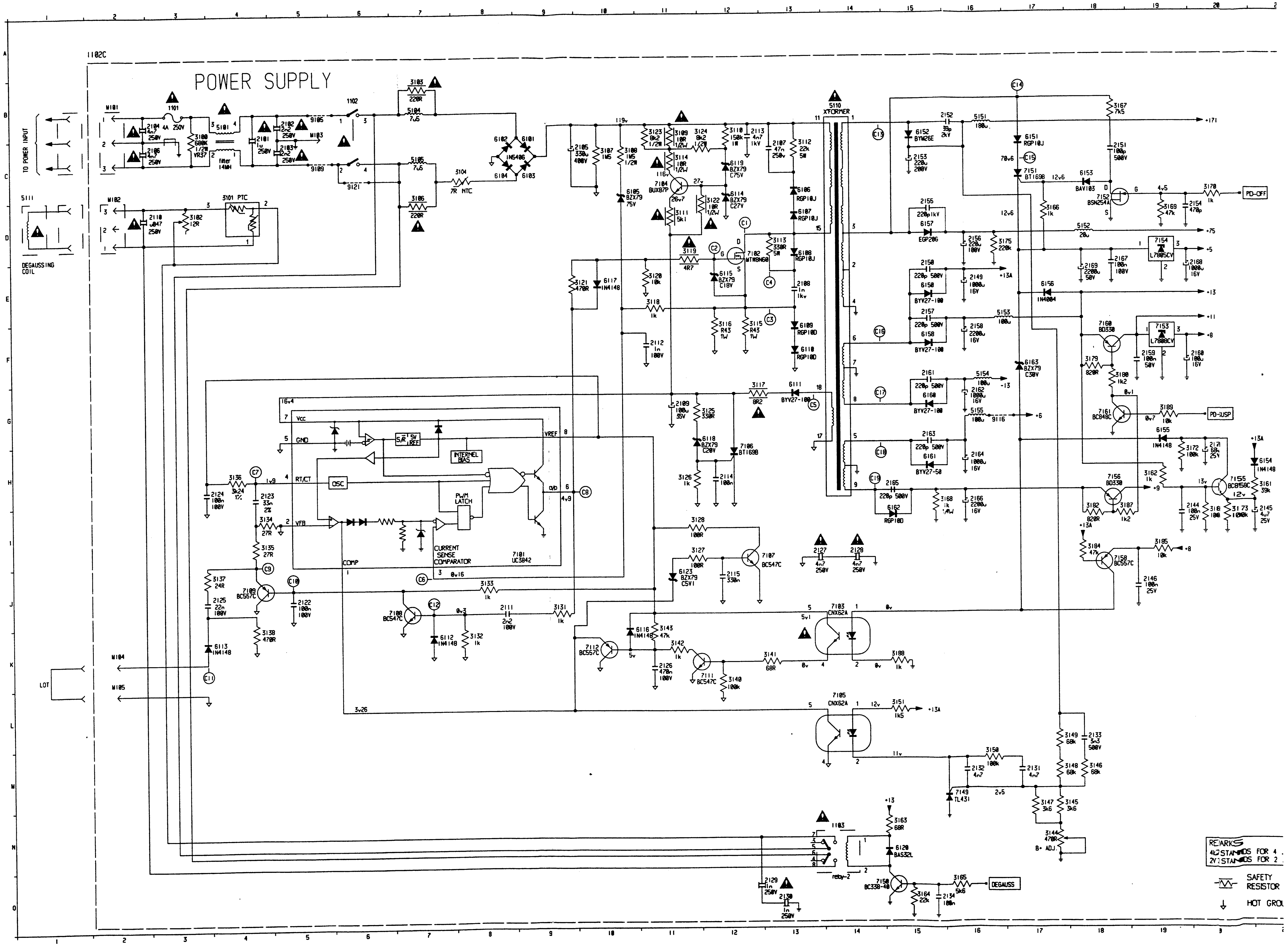
9511	C	2
9512	B	3
9513	D	4
9514	D	5
9515	E	4
9516	D	6
9517	G	4
9518	F	5
9519	G	4
9520	G	5
9521	H	2
9535	F	7
9601	C	9
9602	E	4
9603	F	4
9604	G	5
9605	B	12
9606	H	5
9607	G	5
9608	D	6
9609	E	5
9610	D	6
9611	D	8
9612	E	7
9613	C	6
9614	D	6
9615	F	3
9616	G	3
9617	A	6
9619	F	8
9620	F	8
9622	E	5
9623	F	6
9701	G	7
9702	G	5
9704	F	3
9811	E	1
9812	E	1
9815	C	3
9816	D	3
9817	C	6
9818	D	5
9819	C	6
7523	C	12
7601	F	15
7602	G	15
7603	F	16
7604	F	16
7605	D	16
7606	D	15
7607	C	16
7608	F	14
7609	F	15
7610	E	13
7611	E	14
7612	E	14
7614	A	15
7615	B	10
7616	D	15
7617	D	15
7630	D	9
7631	B	8
7632	C	8
7633	B	7
7634	C	7
7635	B	7
7636	C	6
7637	C	8
7801	C	4
7802	C	2
7803	C	2
7805	C	4
7806	E	2
7807	E	2
7808	C	2
7861	G	6
7862	F	6
7863	F	6
7864	F	7
7865	G	6
9101	I	12
9102	I	5
9103	J	5
9105	J	14
9106	H	4
9107	H	13
9108	I	12
9109	J	14
9110	E	11
9111	F	13
9112	G	14
9113	F	12
9114	F	12
9115	E	12
9116	F	12
9117	H	8
9118	H	14
9119	I	4
9120	I	5
9121	J	3
9122	F	11
9123	E	5
9124	D	8
9125	F	11
9126	F	11
9127	E	5
9128	F	8
9129	F	9
9130	F	7
9131	G	14
9132	E	7
9133	G	10
9134	F	10
9135	G	12
9201	B	12
9202	B	15
9203	I	1
9206	F	12
9232	B	3
9233	B	3
9235	B	3
9301	B	8
9302	E	7
9303	F	8
9304	F	8
9305	F	7
9306	D	5
9307	D	5
9308	C	5
9309	B	6
9310	C	7
9401	G	7
9402	H	6
9403	G	6
9404	H	6
9432	F	15
9433	D	6
9434	H	1
9436	F	5
9437	E	7
9501	D	2
9502	C	4
9503	C	3
9504	F	6
9505	D	4
9506	C	2
9507	G	4
9508	D	1
9509	C	5
9510	D	1
6502	F	3
6503	G	3
6504	D	7
6505	D	6
6506	D	6
6507	E	9
6508	D	11
6509	D	11
6510	A	10
6511	A	10
6512	E	8
6580	E	5
6601	G	15
6602	G	16
6603	F	16
6604	F	16
6605	E	16
6606	D	16
6607	E	14
6608	D	15
6609	C	15
6610	C	12
6612	A	14
6613	D	13
6614	B	11
6628	A	13
6630	D	9
6631	C	10
6632	D	10
6633	C	10
6634	D	7
6635	C	7
6636	C	7
6801	D	4
6802	I	1
6803	I	1
6805	C	3
6806	B	3
6807	D	2
6808	D	2
6861	G	6
6862	F	7
6863	G	7
7101	I	13
7102	I	11
7103	G	14
7104	J	12
7105	G	13
7106	I	12
7107	H	14
7108	J	13
7109	J	13
7111	H	13
7112	H	13
7149	G	12
7150	I	2
7151	F	13
7152	F	14
7153	G	9
7154	C	5
7155	G	8
7156	H	8
7158	H	8
7160	F	8
7161	F	8
7221	A	2
7401	G	1
7402	G	1
7403	G	2
7404	F	2
7405	E	2
7407	A	4
7408	A	4
7409	A	4
7410	B	5
7411	B	6
7412	B	6
7413	C	6
7415	F	4
7416	G	6
7417	G	5
7421	E	6
7424	E	6
7429	H	6
7490	H	6
7500	G	3
7501	H	3
7502	H	3
7503	H	2
7504	H	4
7505	F	2
7506	F	3
7507	G	2
7508	F	3
7509	G	5
7510	F	3
7511	G	4
7513	D	6
7514	D	6
7515	D	6
7516	C	6
7517	E	8
7518	D	12
7519	D	12
7520	D	11
7521	A	9
7522	A	9
3859	D	4
3860	D	4
3861	D	3
3862	E	3
3863	E	4
3864	F	7
3865	G	6
3866	F	6
3867	F	7
3868	F	7
3869	G	6
3870	F	7
3871	G	7
3872	G	7
3873	G	6
3874	D	2
3875	D	2
3876	E	3
3877	E	3
3878	E	3
3879	E	3
3880	E	3
3881	E	2
3882	D	3
3883	D	2
3884	D	3
3885	D	3
3886	D	3
3887	D	3
3992	A	5
3998	H	5
5101	I	14
5104	I	5
5105	J	5
5110	G	11
5151	F	12
5152	F	13
5153	F	10
5154	G	9
5155	F	11
5201	A	1
5221	B	3
5222	B	1
5223	B	1
5224	A	3
5501	F	1
5502	E	11
5503	C	11
5504	C	9
5505	B	9
5506	D	11
5580	D	2
5601	C	13
5602	E	13
5603	E	9
5604	F	7
5605	E	13
5612	B	8
5615	A	12
5616	B	16
5617	D	10
5801	F	13
6101	J	7
6102	I	7
6103	J	7
6104	J	7
6105	H	11
6106	J	11
6107	I	10
6108	I	11
6109	I	10
6110	I	9
6111	H	11
6112	J	12
6113	H	15
6114	J	12
6115	I	10
6116	H	13
6117	I	12
6118	H	12
6119	J	12
6120	H	4
6123	H	13
6150	G	10
6151	G	12
6152	G	11
6153	F	13
6154	H	8
6155	F	8
6156	F	7
6157	G	11
6158	F	10
6160	F	9
6161	F	11
6162	G	10
6163	G	13
6401	G	1
6402	F	2
6403	F	2
6404	G	1
6405	F	1
6406	F	2
6408	H	6
6409	I	8
6410	H	8
6411	A	4
6501	H	2
3644	E	14
3645	E	13
3646	E	13
3647	A	14
3648	B	12
3649	A	13
3650	A	12
3651	A	13
3652	B	16
3653	B	16
3654	A	15
3655	A	14
3656	B	15
3657	B	15
3658	A	15
3659	A	10
3660	C	12
3661	B	12
3662	B	11
3663	B	11
3664	B	11
3665	B	11
3666	A	11
3667	E	10
3668	D	9
3669	D	8
3670	A	8
3671	E	10
3672	A	8
3673	C	8
3674	B	8
3675	C	8
3676	C	7
3677	A	7
3678	C	7
3679	B	7
3680	C	7
3681	C	7
3682	A	7
3683	C	7
3684	B	7
3685	C	7
3686	D	7
3687	C	9
3688	C	8
3689	C	8
3690	D	7
3691	C	7
3692	C	7
3693	E	8
3801	C	4
3802	C	4
3803	C	4
3804	C	4
3805	C	4
3806	C	4
3807	C	4
3808	C	4
3809	C	4
3810	D	2
3811	C	2
3812	C	2
3813	B	2
3814	B	2
3815	B	3
3816	C	2
3817	C	2
3818	C	3
3819	D	1
3820	C	3
3821	C	3
3822	C	3
3823	C	3
3824	E	5
3825	B	3
3826	C	2
3827	C	2
3828	C	2
3829	C	2
3831	D	2
3832	C	2
3833	B	4
3834	B	4
3835	E	4
3836	E	4
3837	D	4
3838	E	4
3839	D	4
3840	E	4
3841	D	3
3842	E	3
3843	D	4
3844	D	4
3845	C	3
3846	C	3
3847	C	3
3848	C	3
3849	D	3
3850	E	3
3851	E	2
3852	E	2
3853	C	2
3854	C	2
3855	C	1
3856	C	1
3857	D	5
3858	D	4
3501	H	4
3502	H	4
3503	H	3
3504	H	2
3505	H	3
3506	H	2
3507	H	3
3508	H	2
3509	H	4
3510	H	4
3511	G	4
3512	F	2
3513	F	2
3514	F	2
3515	F	2
3516	F	3
3517	F	2
3518	G	2
3519	G	2
3520	G	2
3521	G	3
3522	F	3
3523	F	3
3524	F	3
3525	F	3
3526	F	3
3527	F	4
3529	G	3
3532	H	2
3533	D	6
3534	D	7
3535	D	6
3536	D	6
3537	D	6
3538	D	6
3539	D	6
3540	D	6
3541	E	8
3542	E	8
3543	E	10
3544	E	9
3545	E	10
3546	D	12
3547	D	12
3548	D	11
3549	C	11
3550	B	10
3551	A	10
3552	A	10
3553	A	9
3554	A	10
3555	A	10
3556	H	3
3557	E	8
3558	C	11
3580	F	5
3581	F	5
3582	A	4
3583	H	1
3584	H	2
3585	H	2
3586	G	4
3587	F	5
3588	F	5
3601	G	16
3602	G	16
3603	G	15
3604	G	15
3605	F	15
3606	G	15
3607	G	16
3608	F	15
3609	F	15
3610	E	15
3611	E	15
3612	E	16
3613	E	15
3614	F	14
3615	F	14
3616	F	15
3617	F	14
3618	G	14
3619	F	15
3620	G	15
3621	F	15
3622	D	15
3623	E	16
3624	D	15
3625	D	15
3626	E	15
3627	C	16
3628	C	16
3629	C	16
3630	C	15
3631	C	12
3632	C	12
3633	E	15
3634	E	15
3635	E	15
3636	E	15
3637	F	6
3638	G	16
3639	D	15
3640	E	14
3641	E	15
3642	E	15
3643	E	14
3223	B	3
3224	B	2
3226	B	2
3227	B	3
3229	A	3
3230	A	2
3232	A	1
3233	B	3
3235	B	3
3237	A	1
3241	A	1
3242	A	1
3401	H	1
3402	G	1
3403	H	1
3404	H	2
3405	G	1
3406	G	1
3407	G	2
3408	G	1
3409	G	1
3410	F	2
3411	E	2
3412	G	5
3413	E	5
3414	F	4
3416	G	4
3417	F	4
3418	E	4
3419	E	4
3420	F	4
3422	F	4
3424	G	5
3425	F	4
3426	F	4
3427	F	4
3428	D	6
3429	E	7
3430	E	6
3431	E	6
3432	D	7
3433	E	7
3434	F	4
3435	F	4
3436	E	6
3437	D	5
3438	D	5
3439	D	6
3440	D	6
3441	H	7
3442	H	7
3443	H	7
3444	E	6
3445	G	6
3446	G	7
3447	H	7
3448	H	7
3449	C	9
3450	G	7
3451	G	7
3452	F	5
3453	B	4
3454	B	4
3455	B	4
3456	A	4
3457	A	4
3458	A	4
3459	A	4
3460	A	4
3461	B	5
3462	A	5
3463	B	5
3464	A	5
3465	B	4
3466	B	6
3467	A	6
3468	A	5
3469	A	5
3470	A	5
3471	A	5
3472	A	5
3473	A	5
3474	A	5
3475	B	5
3476	B	6
3477	B	5
3478	B	6
3479	B	6
3480	B	6
3481	E	7
3482	D	6
3483	E	6
3484	E	7
3485	E	7
3486	E	6
3487	E	6
3488	E	6
3489	E	6
3490	H	7
3491	H	6
3492	G	6
3493	H	6
3494	D	7
3495	F	4
3496	F	4
3497	F	4
3500	F	5
2803	B	4
2804	C	4
2805	D	4
2806	D	2
2807	C	4
2808	D	3
2809	D	3
2810	D	2
2811	D	3
2812	D	4
2813	D	4
2814	D	5
2815	E	4
2816	E	4
2817	D	4
2818	D	3
2820	F	3
2821	C	2
2822	C	1
2823	C	1
2860	E	4
2861	F	7
2862	F	7
2876	E	3
2877	E	3
2878	E	3
2879	E	2
2880	E	2
2881	E	2
3100	H	15
3101	J	4
3102	J	4
3103	J	6
3104	J	6
3106	J	5
3107	I	7
3108	H	10
3109	J	11
3110	J	11
3111	J	13
3112	J	10
3113	H	10
3114	J	12
3115	I	10
3116	I	10
3117	H	12
3118	H	11
3119	I	12
3120	I	12
3121	I	12
3122	I	12
3123	J	11
3124	J	11
3125	H	12
3126	H	12
3127	H	14
3128	H	14
3131	J	12
3132	J	12
3133	J	13
3134	I	13
3135	J	13
3136	I	13
3137	I	13
3138	H	15
3140	H	13
3141	H	13
3142	H	13
3143	I	13
3144	G	13
3145	G	13
3146	F	12
3147	G	13
3148	F	13
3149	F	12
3150	F	12
3151	G	14
3160	G	8
3161	G	8
3162	F	8
3163	H	4
3164	H	2
3165	I	2
3166	G	13
3167	G	12
3168	G	9
3169	G	14
3170	F	14
3172	F	8
3173	G	8
3175	F	12
3179	F	8
3180	F	8
3182	H	8
3184	H	8
3185	H	8
3187	G	8
3188	G	14
3189	F	8
3201	B	1
3202	B	2
3203	B	2
3204	B	2
3205	A	3
3206	B	3
3221	B	2
3222	B	2
2413	D	7
2414	H	6
2416	H	6
2417	I	7
2418	G	7
2419	H	7
2420	B	5
2421	A	5
2422	A	6
2423	A	6
2424	B	5
2425	B	5
2426	B	6
2427	E	6
2428	E	5
2429	D	6
2430	E	6
2431	E	6
2432	H	6
2490	H	6
2501	H	3
2502	H	3
2503	H	2
2504	F	3
2505	F	2
2506	G	2
2507	G	2
2508	G	3
2509	F	3
2510	G	2
2511	G	3
2512	F	3
2513	F	3
2514	C	5
2515	E	8
2516	G	3
2517	D	6
2518	D	7
2519	E	8
2520	E	10
2521	D	11
2522	D	12
2523	B	11
2524	B	10
2525	B	10
2526	C	11
2527	F	6
2528	D	11
2531	F	3
2580	H	2
2581	F	5
2601	G	16
2602	F	15
2603	F	15
2604	G	15
2605	F	16
2606	F	15
2607	F	15
2608	F	15
2609	F	15
2610	D	15
2611	D	16
2612	B	15
2613	G	15
2614	E	13
2615	D	14
2616	D	14
2617	D	12
2618	D	15
2619	E	15
2620	C	12
2621	B	11
2622	A	13
2623	B	15
2624	B	15
2625	A	15
2626	A	15
2627	A	11
2628	B	11
2629	C	12
2630	D	9
2631	D	9
2632	D	9
2633	D	10
2634	D	10
2635	C	10
2636	E	16
2637	A	8
2638	B	8
2639	B	8
2640	B	8
2641	C	8
2642	B	7
2643	B	7
2644	C	7
2645	B	7
2646	B	7
2647	C	7
2648	C	8
2649	C	8
2650	E	6
2651	D	8
2652	D	14
2653	E	14
2663	A	12
2801	B	5
2802	B	5
F801	E	3
F802	E	3
M101	I	16
M102	J	5
M103	J	15
M104	H	15
M105	H	15
M202	A	3
M203	A	2
M204	A	3
M205	A	3
M206	A	2
M241	A	1
M301	B	4
M501	C	10
M502	B	9
M503	F	5
M504	F	14
M801	G	7
1101	J	15
1102	J	2
1120	H	4
1801	D	1
1802	E	1
1803	E	1
1804	F	1
1810	C	3
1811	C	3
2101	H	14
2102	J	15
2103	J	14
2104	I	15
2105	J	8
2106	H	15
2107	J	9
2108	H	10
2109	H	12
2110	I	5
2111	J	13
2112	I	13
2113	H	9
2114	H	13
2115	H	14
2122	J	13
2123	I	13
2124	I	13
2125	I	13
2126	H	12
2127	H	9
2128	H	9
2129	I	3
2130	H	3
2131	F	13
2132	G	13
2133	F	12
2134	I	1
2144	G	8
2145	G	8
2146	H	8
2149	F	11
2150	G	10
2151	F	13
2152	F	11
2153	G	12
2154	G	14
2155	G	12
2156	F	12
2157	F	10
2158	F	10
2159	F	9
2160	G	8
2161	F	9
2162	F	9
2163	F	11
2164	F	11
2165	G	9
2166	G	9
2167	C	5
2168	C	5
2169	G	14
2170	F	8
2205	A	3
2206	A	3
2221	B	2
2222	B	2
2223	B	3
2224	B	3
2225	B	2
2226	A	3
2227	A	2
2229	B	3
2230	B	3
2231	B	2
2241	A	2
2242	A	2
2243	B	1
2401	G	1
2402	G	2
2403	F	2
2404	F	2
2405	F	5
2406	G	4
2407	F	4
2408	G	4
2410	G	7
2411	F	4
2412	D	6


16
15
14
13
12
11
10
9
A
B
C
D
E
F
G
H
I
J
8238 273 4321.2 SP-SS
8238 273 4322.2 SP-CS
ABL
EHT ADJ.
H_CENT
B1 ADJ.
5601
5615
5504
5110
5101
7601
7101
7102
7103
7105
M101
M103
M104
M105
M501
M504

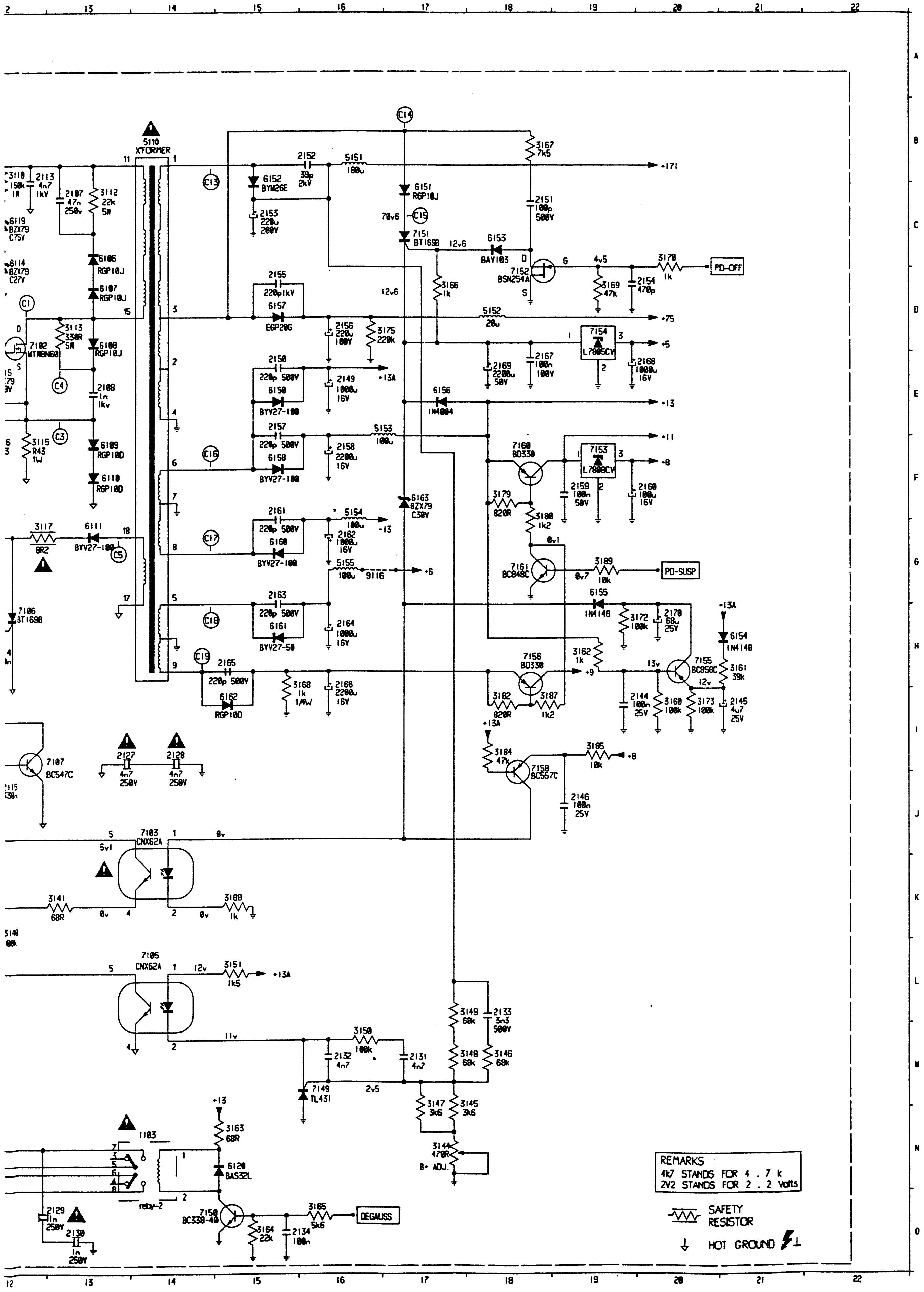
36302


14
13
12
11
10
9
8
7
6
5
4
3
2
1
A
B
C
D
E
F
G
H
I
J
36302
ABL
EHT ADJ.
H_CENTER
PARALLEL
UNBAL_PIN
SUB_CONTRAST
MIC OUT
MIC IN
(WK 9626)
3630.2
3138 103 3630.2

C


1102C
POWER SUPPLY
TO POWER INPUT
M101
1101
4A 250V
2104 4n7 250V
2106 4n7 250V
3100 680K 1/2W VR37
5101 filter 14MH
2101 1u 250V
2102 2n2 250V
2103 2n2 250V
9105
M103
9109
1102
3103 220R
5104 7u5
5105 7u5
3104 7R NTC
9121
3106 220R
6102
6101
6104
6103
1N5406
5111
DEGAUSSING COIL
M102
2110 u047 250V
3102 12R
3101 PTC
2105 330u 400V
3107 1M5
3108 1M5 1/2W
119v
3123 8k2 1/2W
3109 10R 1/2W
3124 8k2 1/2W
3110 150k 1W
2113 4n7 1kV
2107 47n 250v
3112 22k 5W
3114 10R 1/2W
7104 BUX87P
6105 BZX79 75V
3111 5k1
6119 BZX79 C75V
6114 BZX79 C27V
3122 10R 1/2W
6106 RGP10J
6107 RGP10J
7102 MTW8N60
3113 330R 5W
6108 RGP10J
3119 4R7
6115 BZX79 C18V
3121 470R
6117 1N4148
3120 10k
3118 1k
2108 1n 1kv
3116 R43 1W
3115 R43 1W
6109 RGP10D
6110 RGP10D
2112 1n 100V
5110 XFORMER
3117 8R2
6111 BYV27-100
2109 100u 35V
3125 330R
6118 BZX79 C20V
7106 BT169B
3126 1k
2114 100n
16v4
Vcc
GND
VREF
5V IREF
INTERNEL BIAS
RT/CT
OSC
PWM LATCH
VFB
CURRENT SENSE COMPARATOR
7101 UC3842
COMP
O/D
3136 3k24 1%
2124 100n 100V
2123 33n 2%
3134 27R
3135 27R
3137 24R
2125 22n 100V
7109 BC557C
2122 100n 100V
3138 470R
6113 1N4148
7108 BC547C
6112 1N4148
3132 1k
3133 1k
2111 2n2 100V
3131 1k
3128 100R
3127 100R
7107 BC547C
6123 BZX79 C5V1
2115 330n
2127 4n7 250V
2128 4n7 250V
7112 BC557C
6116 1N4148
3143 47k
3142 1k
2126 470n 100V
7111 BC547C
3140 100k
3141 68R
7103 CNX62A
3188 1k
7105 CNX62A
3151 1k5
+13A
M104
M105
LOT
3v26
6152 BYW26E
2152 33p 2kV
5151 180u
+171
2153 220u 200V
6151 RGP10J
7151 BT169B
6153 BAV103
7152 BSN254A
3167 7k5
2151 100p 500V
3169 47k
2154 470p
3170 1k
PD-OFF
2155 220p 1kV
6157 EGP20G
2156 220u 100V
3175 220k
3166 1k
5152 20u
+75
7154 L7805CV
2167 100n 100V
2169 2200u 50V
2168 1000u 16V
+5
2150 220p 500V
6150 BYV27-100
2149 1000u 16V
+13A
6156 1N4004
+13
2157 220p 500V
6158 BYV27-100
2158 2200u 16V
5153 180u
+11
7160 BD330
7153 L7808CV
+8
3179 820R
3180 1k2
2159 100n 50V
2160 100u 16V
6163 BZX79 C30V
2161 220p 500V
6160 BYV27-100
5154 180u
2162 1000u 16V
-13
5155 180u
9116
+6
7161 BC848C
3189 10k
PD-USP
2163 220p 500V
6161 BYV27-50
2164 1000u 16V
6155 1N4148
3172 100k
2171 68u 25V
6154 1N4148
2165 220p 500V
6162 RGP10D
3168 1k 1/4W
2166 2200u 16V
7156 BD330
3162 1k
+9
7155 BC858C
3161 39k
3182 820R
3187 1k2
2144 100n 25V
3181 100
3173 100k
2145 4u7 25V
3184 47k
7158 BC557C
3185 10k
2146 100n 25V
3149 68k
2133 3n3 500V
3150 100k
2132 4n7
2131 4n7
3148 68k
3146 68k
7149 TL431
3147 3k6
3145 3k6
3144 470R
B+ ADJ.
1103
relay-2
3163 68R
6120 BAS32L
7150 BC338-40
3164 22k
2134 100n
3165 5k6
DEGAUSS
2129 1n 250V
2130 1n 250V
REMARKS
SAFETY RESISTOR
HOT GROU

Power Supply


5110 XFORMER
+171
+75
+5
+13
+11
+8
-13
+6
+13A
PD-OFF
PD-SUSP
DEGAUSS
B+ ADJ
reby-2
7102 MTW8N60
7152 BSN254A
7154 L7805CV
7153 L7808CV
7160 BD330
7161 BC848C
7155 BC858C
7156 BD330
7158 BC557C
7103 CNX62A
7105 CNX62A
7149 TL431
7150 BC338-40
7107 BC547C
7106 BT169B
7151 BT169B

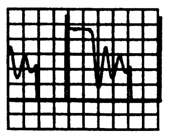
REMARKS :
4k7 STANDS FOR 4 . 7 k
2V2 STANDS FOR 2 . 2 Volts

SAFETY RESISTOR

HOT GROUND

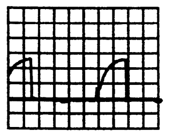
1101	B 3
1102	B 6
1103	N14
2101	B 4
2102	B 5
2103	C 5
2104	B 3
2105	C10
2106	C 3
2107	C13
2108	E13
2109	G11
2110	D 3
2111	J 8
2112	F11
2113	B12
2114	H12
2115	J12
2122	J 5
2123	H 4
2124	H 4
2125	J 4
2126	K11
2127	I13
2128	I14
2129	O13
2130	O13
2131	M17
2132	M16
2133	L18
2134	O16
2144	I20
2145	I21
2146	J19
2149	E16
2150	E15
2151	C18
2152	B16
2153	C15
2154	D20
2155	D15
2156	D16
2157	E15
2158	F16
2159	F19
2160	F20
2161	F15
2162	G16
2163	G15
2164	H16
2165	H15
2166	H16
2167	E18
2168	E20
2169	E18
2170	H20
3100	B 3
3101	C 4
3102	D 3
3103	B 7
3104	C 8
3106	C 7
3107	C10
3108	C10
3109	B11
3110	B12
3111	D11
3112	C13
3113	D13
3114	C11
3115	F12
3116	F12
3117	G12
3118	E11
3119	D11
3120	E11
3121	E10
3122	D12
3123	B11
3124	B12
3125	G12
3126	H11
3127	I11
3128	I11
3131	J 9
3132	K 8
3133	J 8
3134	I 4
3135	I 4
3136	H 4
3137	J 4
3138	K 4
3140	K12
3141	K13
3142	K11
3143	K11
3144	N17
3145	M18
3146	M18
3147	M17
3148	M18
3149	L18
3150	M16
3151	L15
3160	I20
3161	H21
3162	H19
3163	N15
3164	O15
3165	O16
3166	D17
3167	B18
3168	H16
3169	D19
3170	C20
3172	H20
3173	I20
3175	D17
3179	F18
3180	F18
3182	I18
3184	I18
3185	I19
3187	I18
3188	K15
3189	G19
5101	B 4
5104	B 7
5105	C 7
5110	B14
5151	B16
5152	D18
5153	E17
5154	F16
5155	G16
6101	C 9
6102	C 8
6103	C 9
6104	C 8
6105	C10
6106	C13
6107	D13
6108	D13
6109	F13
6110	F13
6111	F13
6112	K 7
6113	K 4
6114	C12
6115	E12
6116	K11
6117	E10
6118	G13
6119	C12
6120	N15
6123	J11
6150	E15
6151	B17
6152	B15
6153	C18
6154	H21
6155	G19
6156	E17
6157	D15
6158	F15
6160	G15
6161	H15
6162	I15
6163	F17
7101	I 8
7102	D12
7103	J14
7104	C11
7105	L14
7106	H12
7107	I12
7108	J 7
7109	J 4
7111	K12
7112	K10
7149	M16
7150	O15
7151	C17
7152	D18
7153	F19
7154	D19
7155	H20
7156	H18
7158	I18
7160	F18
7161	G18
9105	B 5
9109	C 5
9116	G16
9121	C 6
M101	C 2
M101	B 2
M101	B 2
M102	D 2
M102	C 2
M102	D 2
M103	B 5
M104	K 2
M105	K 2

C1 7102-D



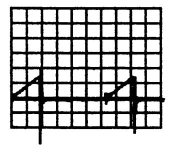
50 V/div AC
5 uS/div

C2 7102-G



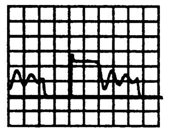
5 V/div AC
5 uS/div

C3 7102-S



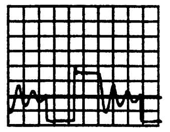
0.5 V/div AC
5 uS/div

C4 6108-K



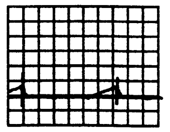
100 V/div AC
5 uS/div

C5 5110-18



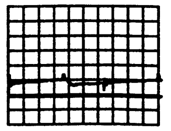
10 V/div AC
5 uS/div

C6 7101-3



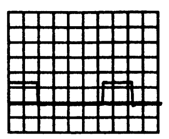
1 V/div AC
5 uS/div

C7 7101-4



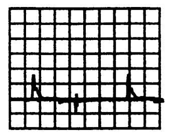
2 V/div AC
5 uS/div

C8 7101-6



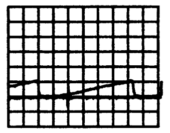
10 V/div AC
5 uS/div

C9 7109-E



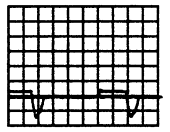
1 V/div AC
5 uS/div

C10 7109-B



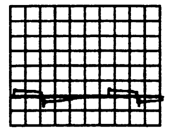
1 V/div AC
5 uS/div

C11 M104



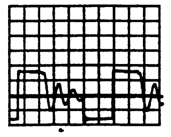
10 V/div AC
5 mS/div

C12 7108-B



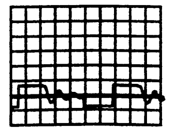
2 V/div AC
5 uS/div

C13 5110-1



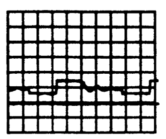
100 V/div AC
5 uS/div

C14 5101-3



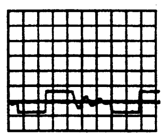
100 V/div AC
5 uS/div

C15 6151-K



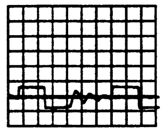
50 V/div AC
5 uS/div

C16 5110-6



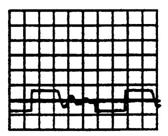
20 V/div AC
5 uS/div

C17 5110-8



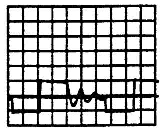
10 V/div AC
5 uS/div

C18 5110-5



10 V/div AC
5 uS/div

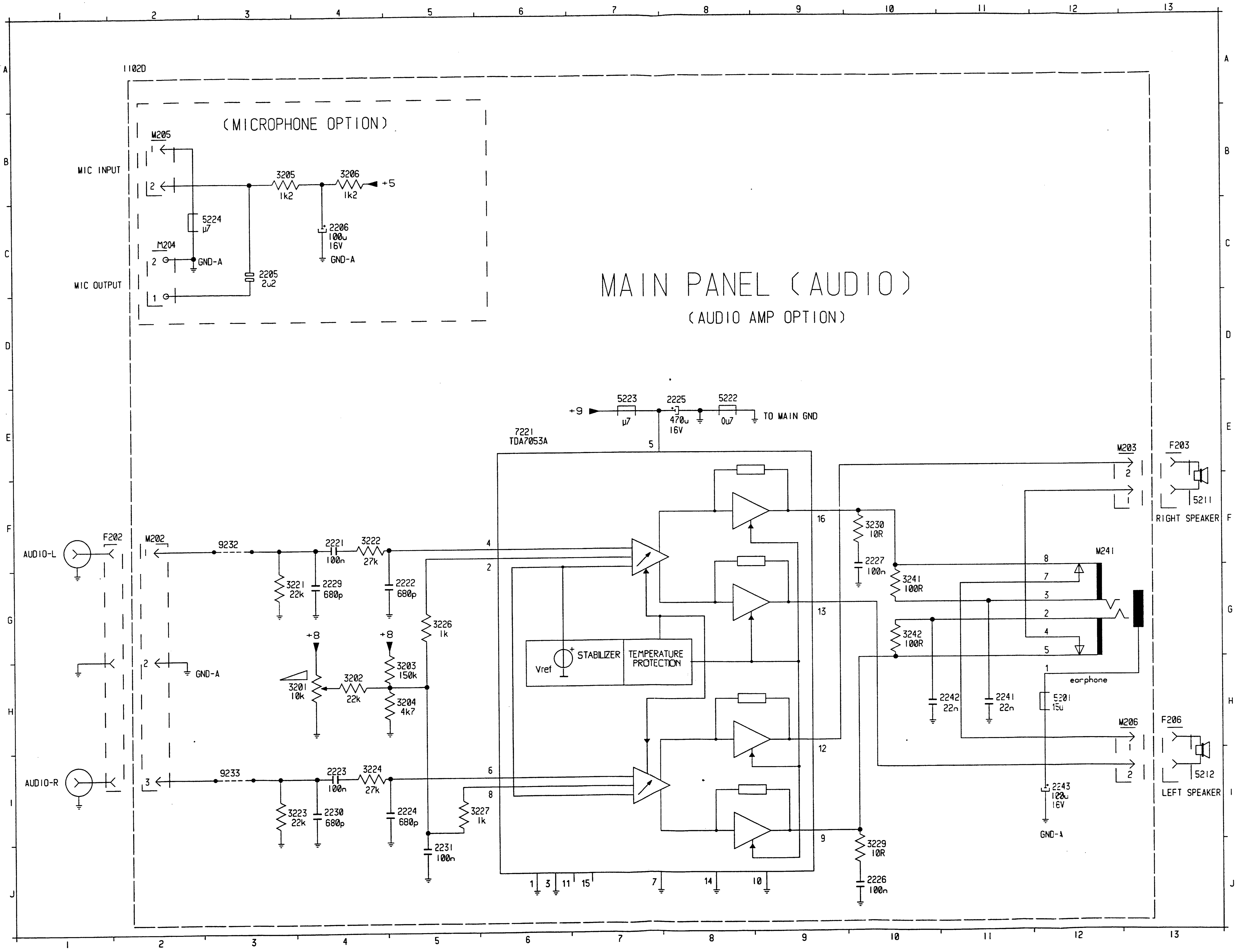
C19 5110-9



10 V/div AC
5 uS/div

Audio

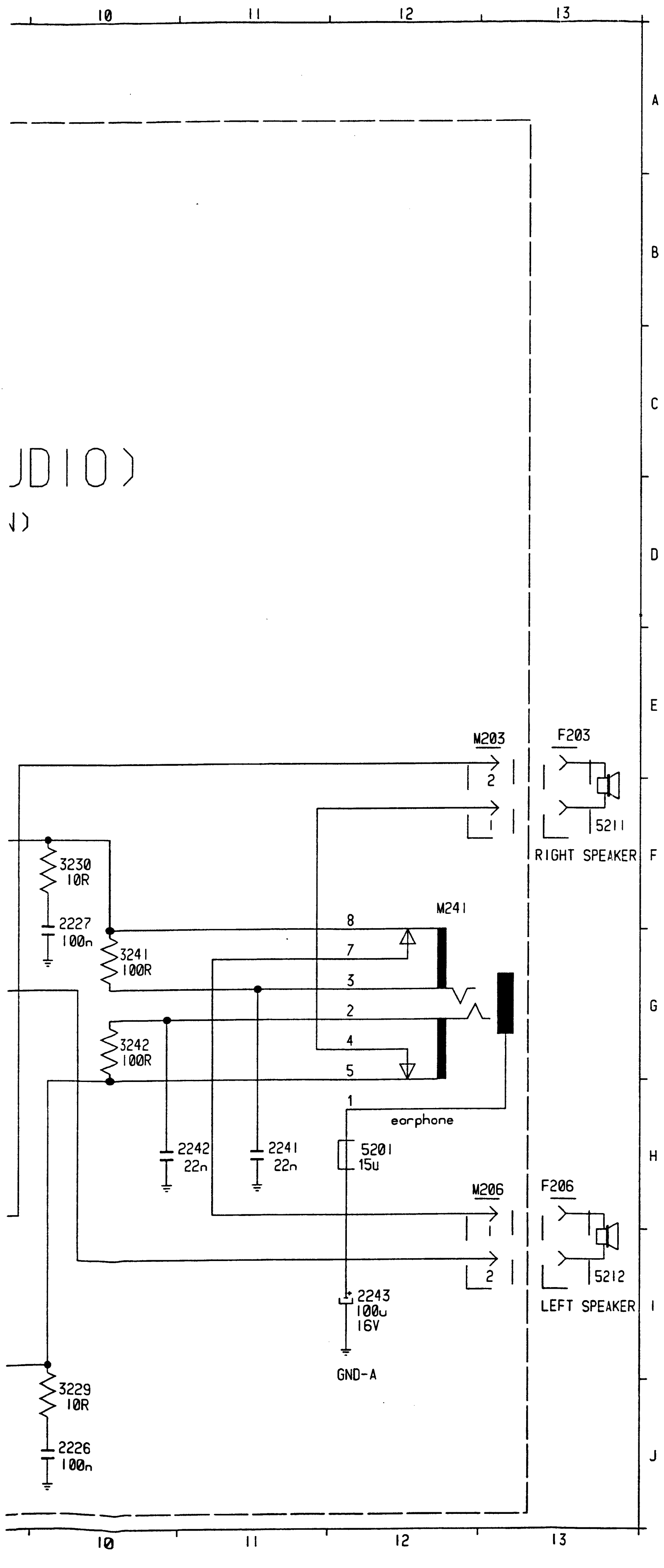
D


1102D
(MICROPHONE OPTION)
M205
MIC INPUT
3205 1k2
3206 1k2
+5
5224 µ7
2206 100u 16V
GND-A
M204
MIC OUTPUT
2205 2u2
MAIN PANEL (AUDIO)
(AUDIO AMP OPTION)
+9
5223 µ7
2225 470u 16V
5222 0u7
TO MAIN GND
7221 TDA7053A
STABILIZER
TEMPERATURE PROTECTION
Vref
AUDIO-L
AUDIO-R
F202
M202
9232
9233
2221 100n
3222 27k
3221 22k
2229 680p
2222 680p
3226 1k
+8
3201 10k
3202 22k
3203 150k
3204 4k7
GND-A
2223 100n
3224 27k
3223 22k
2230 680p
2224 680p
3227 1k
2231 100n
3230 10R
2227 100n
3241 100R
3242 100R
3229 10R
2226 100n
2242 22n
2241 22n
5201 15u
2243 100u 16V
GND-A
earphone
M241
M203
F203
5211
RIGHT SPEAKER
M206
F206
5212
LEFT SPEAKER

2205	C 3
2206	C 4
2221	F 4
2222	G 5
2223	I 4
2224	I 5
2225	E 8
2226	J10
2227	F10
2229	G 4
2230	I 4
2231	J 5
2241	H11
2242	H11
2243	I12
3201	H 4
3202	H 4
3203	H 5
3204	H 5
3205	B 3
3206	B 4
3221	G 4
3222	F 4
3223	I 4
3224	I 4
3226	G 5
3227	I 6
3229	J10
3230	F10
3241	G10
3242	G10
5201	H12
5222	E 8
5223	E 7
5224	C 3
7221	E 6
9232	F 3
9233	I 3
M202	F 2
M202	I 2
M202	H 2
M203	E13
M203	F13
M204	C 2
M204	C 2
M205	B 2
M205	B 2
M206	H13
M206	H13
M241	F12

MODEL / ITEM	HI
3417	2
3450	2
3451	1
M502	
9601	
3824	1
3648	18
9702	
CRT SOCKET	C
3821	
3822	
DAF	

MODEL / ITEM	
	T
9605	N
2663	5


10
11
12
13
A
B
C
D
E
F
G
H
I
J
JD10)
M203
F203
2
1
5211
RIGHT SPEAKER
3230
10R
2227
100n
3241
100R
M241
8
7
3
2
4
5
3242
100R
1
earphone
2242
22n
2241
22n
5201
15u
M206
F206
1
2
5212
LEFT SPEAKER
2243
100u
16V
GND-A
3229
10R
2226
100n

2205	C 3
2206	C 4
2221	F 4
2222	G 5
2223	I 4
2224	I 5
2225	E 8
2226	J10
2227	F10
2229	G 4
2230	I 4
2231	J 5
2241	H11
2242	H11
2243	I12
3201	H 4
3202	H 4
3203	H 5
3204	H 5
3205	B 3
3206	B 4
3221	G 4
3222	F 4
3223	I 4
3224	I 4
3226	G 5
3227	I 6
3229	J10
3230	F10
3241	G10
3242	G10
5201	H12
5222	E 8
5223	E 7
5224	C 3
7221	E 6
9232	F 3
9233	I 3
M202	F 2
M202	I 2
M202	H 2
M203	E13
M203	F13
M204	C 2
M204	C 2
M205	B 2
M205	B 2
M206	H13
M206	H13
M241	F12

MODEL / ITEM	HITACHI	MEC	PHILIP/0.39mm
3417	220k	220k	120k
3450	2R4	2R4	2R4
3451	1R8	2R	1R8
M502	Y	N	N
9601	N	Y	Y
3824	100R	15k	100R
3648	180k 1%	180k 1%	75k 1%
9702	Y	Y	N
CRT SOCKET	CM28	CM28	CM18
3821			N
3822	N	N	Y
DAF	Y	Y	N

MODEL / ITEM	LIEN-CHANG LOT		TAMACO LOT	
	TCO	MPR-11	TCO	MPR-11
9605	N	N	Y	Y
2663	56u	33u	56u	33u

Repair tip

0. Warning

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the unit via a wrist wrap with resistance. Keep components and tools also at the same potential !

1. Servicing of SMDs (Surface Mounted Devices)

1.1 General cautions on handling and storage

- Oxidation on the terminals of SMDs results in poor soldering. Do not handle SMDs with bare hands.
- Avoid using storage places that are sensitive to oxidation such as places with sulphur or chlorine gas, direct sunlight, high temperatures or a high degree of humidity. The capacitance or resistance value of the SMDs may be affected by this.
- Rough handling of circuit boards containing SMDs may cause damage to the components as well as the circuit boards. Circuit boards containing SMDs should never be bent or flexed. Different circuit board materials expand and contract at different rates when heated or cooled and the components and/or solder connections may be damaged due to the stress. Never rub or scrape chip components as this may cause the value of the component to change. Similarly, do not slide the circuit board across any surface.

1.2 Removal of SMDs

- Heat the solder (for 2-3 seconds) at each terminal of the chip. By means of litz wire and a slight horizontal force, small components can be removed with the soldering iron. They can also be removed with a solder sucker (see Fig. 10.1A)

DISMOUNTING

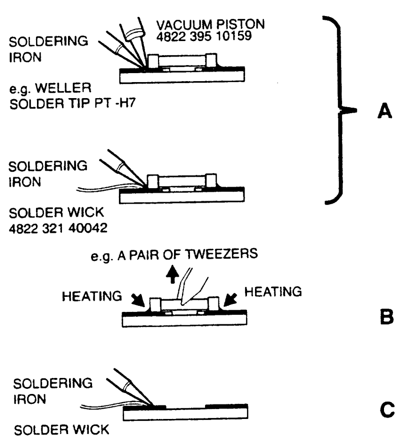

SOLDERING IRON
VACUUM PISTON 4822 395 10159
e.g. WELLER SOLDER TIP PT -H7
A
SOLDERING IRON
SOLDER WICK 4822 321 40042
e.g. A PAIR OF TWEEZERS
HEATING
HEATING
B
SOLDERING IRON
SOLDER WICK
C

Fig. 10.1

- While holding the SMD with a pair of tweezers, take it off gently using the soldering iron's heat applied to each terminal (see Fig. 10.1 B).
- Remove the excess solder on the solder lands by means of litz wire or a solder sucker (see Fig. 10.1C).

1.3 Caution on removal

- When handling the soldering.iron. use suitable pressure and be careful.
- When removing the chip, do not use undue force with the pair of tweezers.
- The soldering iron to be used (approx. 30 W) should preferably be equipped with a thermal control (soldering temperature: 225 to 250 °C).
- The chip, once removed, must never be reused.

1.4 Attachment of SMDs

- Locate the SMD on the solder lands by means of tweezers and solder the component on one side. Ensure that the component is positioned correctly on the solder lands (see Fig. 10.2A).
- Next complete the soldering of the terminals of the component (see Fig. 10.2B).

MOUNTING

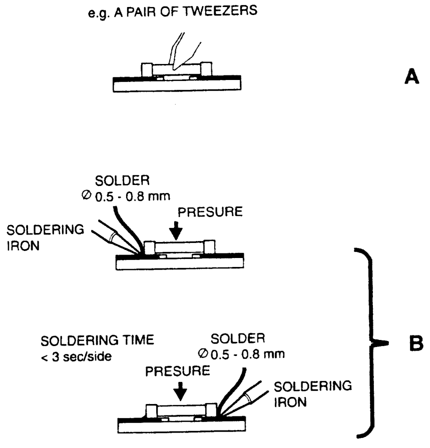

e.g. A PAIR OF TWEEZERS
A
SOLDER
⌀0.5 - 0.8 mm
PRESURE
SOLDERING IRON
SOLDERING TIME
< 3 sec/side
SOLDER
⌀0.5 - 0.8 mm
PRESURE
SOLDERING IRON
B

Fig. 10.2

2. Caution when attaching SMDs

- When soldering the SMD terminals, do not touch them directly with the soldering iron. The soldering should be done as quickly as possible, care must be taken to avoid damage to the terminals of the SMDs themselves.
- Keep the SMD's body in contact with the printed board when soldering.
- The soldering iron to be used (approx. 30 W) should preferably be equipped with a thermal control (soldering temperature: 225 to 250 °C).
- Soldering should not be done outside the solder land.
- Soldering flux (of rosin) may be used, but should not be acid ic.
- After soldering, let the SMD cool down gradually at room temperature.
- The quantity of solder must be proportional to the size of the solder land. If the quantity is too great, the SMD might crack or the solder lands might be torn loose from the printed board (see Fig. 10.3).

EXAMPLES

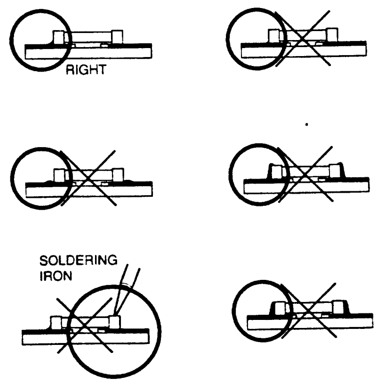
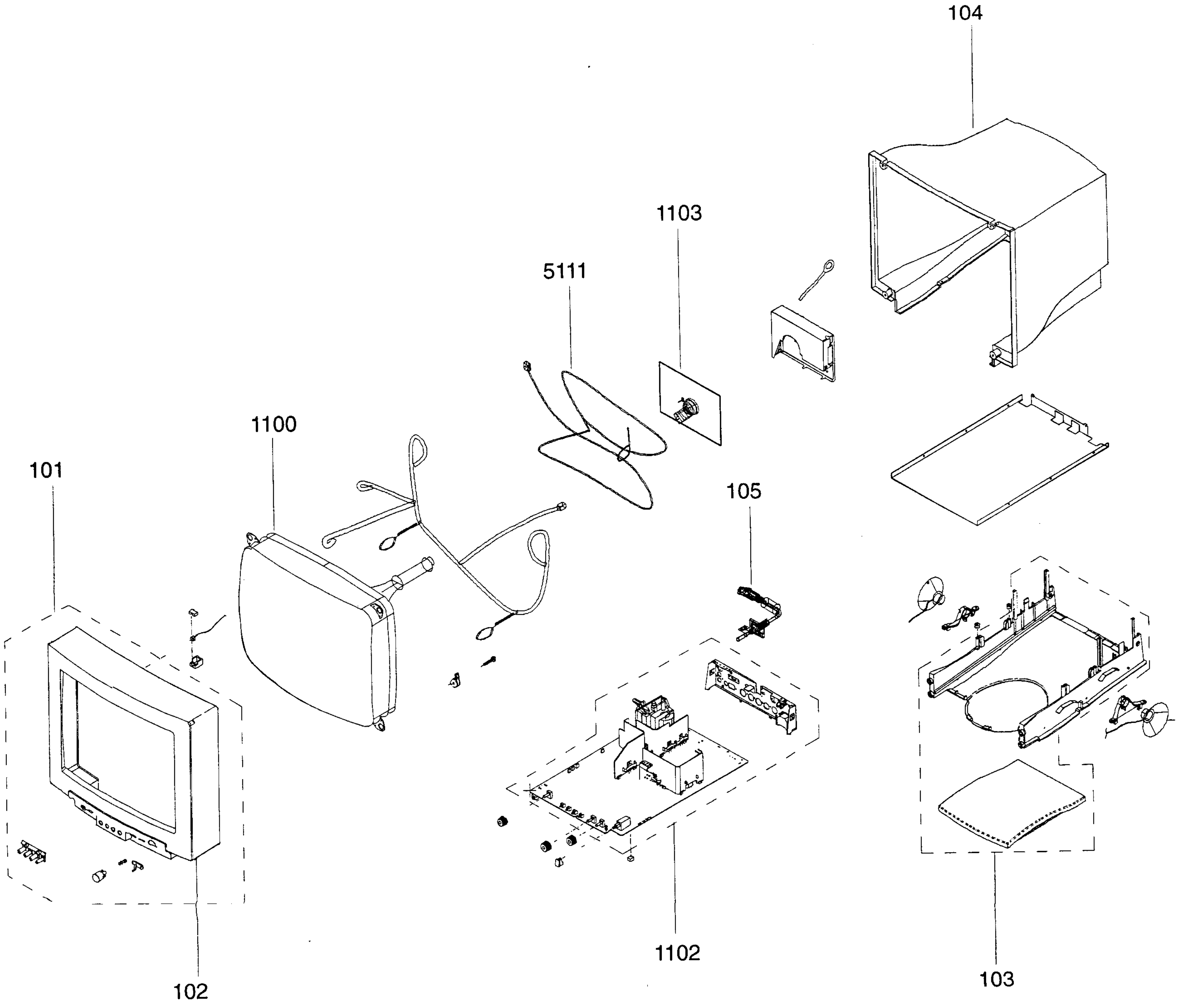

RIGHT
SOLDERING IRON

Fig. 10.3

Explode view


104
1103
5111
1100
101
105
1102
102
103

Spare parts list

Parts indicated on exploded view : Model: 17B6822N/75C

17B6822N/97C

101	4822 459 04248	FRONT CABINET ASSY
102	4822 459 04249	FRONT CABINET
103	4822 462 10589	PEDESTAL, PLAST
104	4822 426 10226	REAR COVER
105	4822 320·11528	INTERFACE CABLE ASS'Y
1100▲	4822 131 11126	M41KWB180X44
5111▲	4822 157 71486	DEGAUSSING COIL

Various

	4822 381 11566	PLATE, TRANSPAR
	4822 410 63522	PUSH BUTTON, PL
	4822 410 63521	PUSH BUTTON, PL
	4822 492 71179	SPRING
	4822 413 41889	KNOB, PLASTIC
	4822 701 20292	SCREW, STEEL
	4822 442 00451	BOTTOM PLATE ASS'Y
	4822 462 42033	PACKING MATERIA
	4822 267 31991	CONNECTOR, ELEC
	4822 736 14568	D.F.U. (FOR /97C ONLY)
	4822 736 14592	D.F.U. (FOR /75C ONLY)
	4822 600 10409	BAG, PLASTIC
	4822 600 10453	BOX, PAPERBOARD
	4822 701 12903	PACKING MATERIA
1101▲	4822 070 34002	218004.(4A)
1104	4822 526 20183	SPOILER

Accessoriues

	4822 321 62261	INTERF.CABLE AUDIO
	4822 320 11394	CABLE,CONNECTI
1105	4822 321 10835	CORD, MAINS (FOR /97C ONLY)
1105	4822 321 10998	CORD, MAINS (FOR /75C ONLY)

1102 Main panel

1102	4822 218 10795	MAIN PCB ASSY

Accessoriues

	4822 265 30375	4P
	4822 492 71337	SPRING
	4822 265 30891	2 P.
	4822 265 10286	2P
	4822 265 31231	3 P MALE
	4822 267 31838	2 P
	5322 390 20011	VET SILIC.P4 20GR
	4822 265 30895	2 P.
	4822 402 10413	BRACKET - REAR ASS'Y
	4822 265 31077	CONNECTOR, ELEC
	4822 265 10671	3P FEM.
	4822 276 13476	SWITCH
	4822 267 31526	CONNECTOR, CABL
	4822 276 13467	SWI TACT 1P 50MA
	4822 265 31206	4P
	5322 255 40958	8-DIP-S-LC
	4822 265 10672	42P FEM.
1103▲	4822 280 70378	RELAY
	4822 492 62076	FOR TRANSISTORS
	5322 390 20011	VET SILIC.P4 20GR
	4822 466 93161	PLATE, MICA
1205	4822 209 13718	IC DIG MOS EPRO
1810	4822 242 10329	4MHz .30P GP B

⊣⊢

2101▲	5322 121 44212	1µF 10% 275B
2102▲	4822 122 33652	2.2nF 20% 400V
2103▲	4822 122 33652	2.2nF 20% 400V
2104▲	4822 122 33535	4.7nF 20% 400V
2105	4822 124 42168	330µF 400V
2106▲	4822 122 33535	4.7nF 20% 400V
2107	4822 121 70556	47nF 20% 250V
2108	4822 126 13134	1nF 10% 1KV
2109	4822 124 22336	100µF 20% 40V
2110▲	4822 121 70556	47nF 20% 250V
2111	4822 121 70439	2.2nF 5% 100V
2112	4822 121 70565	1nF 100V
2113	4822 126 13416	4700pF 10% Y5P 1KV
2114	4822 121 43693	10nF 100V
2115	4822 121 43697	330nF 10% 100V
2122	4822 121 43696	100nF 100V
2123	4822 126 13607	33N 2% 100V
2124	4822 121 43696	100nF 100V
2125	4822 121 43694	22nF 100V
2126	4822 121 43913	470nF 10% 100V
2127	4822 122 33535	4.7nF 20% 400V
2128	4822 122 33535	4.7nF 20% 400V
2129	4822 122 40602	1nF 20% 400V
2130	4822 122 40602	1nF 20% 400V
2131	5322 126 10223	4.7nF 10% 63V
2132	5322 126 10223	4.7nF 10% 63V
2133	4822 126 13993	3.3nF 10% 500V
2134	4822 126 13196	100nF 10% 25V
2144	4822 126 13196	100nF 10% 25V
2145	4822 124 41659	4.7µF 20% 25V
2146	4822 126 13196	100nF 10% 25V
2149	4822 124 42172	1000µF 16V
2150	4822 122 33645	220pF 500V
2151	4822 122 32899	100pF 10%B 500V
2152	4822 126 13615	39P 5% 2KV
2153	4822 124 81303	220µF 20% 200V
2154	5322 122 32268	470pF 10% 50V
2155	4822 126 13202	220pF 10% 1KV
2156	4822 124 80538	220µF 20% 100V
2157	4822 122 33645	220pF 500V
2158	4822 124 81285	2200µF 20% 16V
2159	4822 126 13196	100nF 10% 25V
2160	4822 124 22678	100µF 20% 16V
2161	4822 122 33645	220pF 500V
2162	4822 124 42172	1000µF 16V
2163	4822 122 33645	220pF 500V
2164	4822 124 42172	1000µF 16V
2165	4822 122 33645	220pF 500V
2166	4822 124 81285	2200µF 20% 16V
2167	4822 121 43696	100nF 100V
2168	4822 124 42172	1000µF 16V
2169	4822 124 11548	50V 2200U 20%
2170	4822 124 42425	68µF 20% 25V
2205	4822 124 11613	2.2µF 20% 50V
2206	4822 124 22678	100µF 20% 16V
2221	4822 126 13196	100nF 10% 25V
2222	5322 126 10184	820pF 5% 50V
2223	4822 126 13196	100nF 10% 25V
2224	5322 126 10184	820pF 5% 50V
2225	4822 124 40198	470µF 20% 16V
2226	4822 121 43696	100nF 100V
2227	4822 121 43696	100nF 100V
2229	5322 126 10184	820pF 5% 50V
2230	5322 126 10184	820pF 5% 50V
2231	4822 126 13196	100nF 10% 25V
2241	4822 121 43694	22nF 100V
2242	4822 121 43694	22nF 100V
2243	4822 124 22678	100µF 20% 16V
2324	5322 122 34123	1nF 10% 50V
2401	4822 124 41659	4.7µF 20% 25V
2402	4822 124 42425	68µF 20% 25V
2403	5322 122 32268	470pF 10% 50V
2404	4822 124 22669	1µF 20% 50V
2405	4822 124 22681	47µF 20% 16V
2406	5322 122 32334	220pF 10% 100V
2407	4822 121 43696	100nF 100V
2408	4822 121 43699	220nF 100V
2410	5322 122 32311	470pF 10% 100V
2412	4822 122 32614	1.2nF 10% 50V
2413	4822 124 81068	220µF 20% 25V
2414	5322 122 34123	1nF 10% 50V
2416	4822 124 40198	470µF 20% 16V
2417	4822 124 40198	470µF 20% 16V
2418	4822 121 43696	100nF 100V
2419	4822 124 42359	47µF 100V
2420	4822 124 11613	2.2µF 20% 50V
2421	4822 124 22686	10µF 16V
2422	4822 124 22681	47µF 20% 16V
2423	4822 124 22669	1µF 20% 50V
2424	5322 116 80853	560pF 5% 63V
2425	5322 116 80853	560pF 5% 63V
2426	4822 124 22681	47µF 20% 16V
2427	4822 124 22686	10µF 16V
2428	4822 124 22669	1µF 20% 50V
2429	5322 122 34098	10nF 10% 63V
2430	5322 122 34098	10nF 10% 63V
2431	4822 126 13196	100nF 10% 25V
2490	4822 122 33891	3.3nF 10% 63V
2501	5322 122 32654	22nF 10% 63V
2502	5322 122 32654	22nF 10% 63V
2503	4822 124 80886	0.47µF 20% 200V
2504	4822 126 13196	100nF 10% 25V
2505	4822 121 43696	100nF 100V
2506	4822 121 43694	22nF 100V
2507	4822 121 43697	330nF 10% 100V
2508	4822 121 70493	5.6nF 5% 100V
2509	4822 124 81068	220µF 20% 25V
2510	4822 121 43696	100nF 100V
2511	4822 126 13606	10N 2% 100V
2512	4822 121 43693	10nF 100V
2513	4822 121 70439	2.2nF 5% 100V
2514	4822 124 41659	4.7µF 20% 25V
2515	4822 121 43693	10nF 100V
2516	4822 124 42172	1000µF 16V
2517	4822 121 10497	4N7 2% 100V
2518	4822 122 33575	220pF 5% 50V
2519	4822 124 22675	1µF 20% 160V
2520	4822 121 43696	100nF 100V
2521	4822 124 42149	220µF 20% 25V
2522	4822 121 10504	250V 10N 5%
2523	4822 121 70301	1µF 100V
2524	4822 124 80132	47µF 20% 25V
2525	4822 124 80132	47µF 20% 25V
2526	4822 122 33968	1nF 5% 500V
2527	5322 122 33538	150pF 2% 63V
2528	4822 124 42161	33µF 20% 250V
2531	4822 126 13196	100nF 10% 25V
2580	4822 124 22686	10µF 16V
2581	4822 121 43694	22nF 100V
2601	4822 122 33891	3.3nF 10% 63V
2602	4822 121 70615	33nF 2% 100V
2603	4822 126 13196	100nF 10% 25V
2604	4822 124 40804	22µF 20% 63V
2605	4822 124 22669	1µF 20% 50V
2606	4822 121 43696	100nF 100V
2607	5322 116 80853	560pF 5% 63V
2608	5322 122 32654	22nF 10% 63V
2609	4822 126 13607	33N 2% 100V
2610	4822 121 43697	330nF 10% 100V
2611	4822 124 40756	1µF 20% 100V
2612	4822 121 70301	1µF 100V
2613	5322 122 34123	1nF 10% 50V
2614	4822 121 70439	2.2nF 5% 100V
2616	4822 121 70491	6.8nF 5% 630V
2617	4822 124 40755	100µF 20% 100V
2618	4822 126 13134	1nF 10% 1KV
2619	4822 124 80132	47µF 20% 25V
2620	4822 124 42161	33µF 20% 250V
2621	4822 121 70301	1µF 100V
2623	4822 126 13134	1nF 10% 1KV
2624	4822 121 40336	47nF 10% 250V
2625	4822 124 22678	100µF 20% 16V
2626	4822 124 41659	4.7µF 20% 25V
2627	4822 121 70394	15nF 10% 250V
2628	4822 126 12267	470pF 10%R(HR) 2KV
2629	4822 121 43911	47nF 10% 630V
2631	4822 126 12267	470pF 10%R(HR) 2KV
2632	4822 126 12267	470pF 10%R(HR) 2KV
2633	4822 121 42004	10nF 10% 400V
2635	4822 126 12096	4.7nF 5% 1.6KV
2636	4822 122 33891	3.3nF 10% 63V
2637	4822 126 13824	400V 4N7 5%
2638	4822 121 70448	330nF 5% 250V
2639	4822 121 70489	5nF 5% 250V
2640	4822 122 33968	1nF 5% 500V
2641	4822 124 22686	10µF 16V
2642	4822 121 70411	220nF 5% 250V
2643	4822 122 33968	1nF 5% 500V
2644	4822 124 22686	10µF 16V
2645	4822 121 43671	560nF 10% 250V
2646	4822 122 33968	1nF 5% 500V
2647	4822 124 22686	10µF 16V
2648	4822 124 22681	47µF 20% 16V
2649	4822 121 43696	100nF 100V
2650	4822 124 22686	10µF 16V
2651	4822 121 43696	100nF 100V
2652	4822 126 13416	4700pF 10% Y5P 1KV
2663	4822 124 42199	22µF 20% 50V
2801	4822 124 22686	10µF 16V
2802	4822 124 41659	4.7µF 20% 25V
2803	4822 124 41659	4.7µF 20% 25V
2804	4822 124 41659	4.7µF 20% 25V
2805	5322 122 34123	1nF 10% 50V
2806	5322 122 34098	10nF 10% 63V
2807	4822 124 22686	10µF 16V
2808	5322 122 32659	33pF 5% 50V
2809	5322 122 32659	33pF 5% 50V
2810	5322 122 34123	1nF 10% 50V
2811	5322 122 34123	1nF 10% 50V
2812	4822 122 33575	220pF 5% 50V
2813	4822 124 42172	1000µF 16V
2814	4822 124 22686	10µF 16V
2815	4822 124 42031	2.2µF 20% 25V
2816	4822 124 22686	10µF 16V
2817	4822 124 22686	10µF 16V
2820	4822 124 42031	2.2µF 20% 25V
2821	4822 126 13196	100nF 10% 25V
2822	5322 122 32531	100pF 5% 50V
2823	5322 122 32531	100pF 5% 50V
2860	4822 124 42031	2.2µF 20% 25V
2861	4822 124 22686	10µF 16V
2862	4822 124 22686	10µF 16V
2876	4822 124 22686	10µF 16V
2877	4822 124 22686	10µF 16V
2878	4822 124 22686	10µF 16V
2879	4822 124 22686	10µF 16V
2880	4822 124 22686	10µF 16V
2881	4822 124 22686	10µF 16V

-▭-

3100	4822 053 21684	680k 5% 0.5W
3102	4822 116 40265	12Ω PTC 25% 276V
3103▲	4822 052 10221	220Ω 5% 0.33W
3104	4822 116 30425	7Ω 15%
3106▲	4822 052 10221	220Ω 5% 0.33W
3107	4822 050 21505	1M5 1% 0.6W
3108	4822 050 21505	1M5 1% 0.6W
3109▲	4822 052 11109	10Ω 5% 0.5W
3110	4822 117 12428	150k 5% 1W
3111▲	4822 052 10512	5k1 5% 0.33W
3112	4822 117 11633	22k 5% 5W
3113	4822 117 11639	330Ω 5% 5W
3114▲	4822 052 11109	10Ω 5% 0.5W
3115	4822 117 12364	0Ω43 5% 1W
3116	4822 117 12364	0Ω43 5% 1W
3117▲	4822 052 10828	8Ω2 5% 0.33W
3118	4822 050 11002	1k 1% 0.4W
3119▲	4822 052 10478	4Ω7 5% 0.33W
3120	4822 050 21003	10k 1% 0.6W
3121	4822 050 24701	470Ω 1% 0.6W
3125	4822 050 21003	10k 1% 0.6W
3126	4822 116 81849	220k 5%
3127	4822 050 21001	100Ω 1% 0.6W
3128	4822 050 21001	100Ω 1% 0.6W
3131	4822 050 11002	1k 1% 0.4W
3132	4822 050 11002	1k 1% 0.4W
3133	4822 050 11002	1k 1% 0.4W
3134	4822 050 22709	27Ω 1% 0.6W
3135	4822 050 22709	27Ω 1% 0.6W
3136	4822 050 23242	3k24 1% 0.6W
3137	4822 050 22409	24Ω 1% 0.6W
3138	4822 050 24701	470Ω 1% 0.6W
3140	4822 116 52234	100k 5% 0.5W
3141	4822 050 26809	68Ω 1% 0.6W
3142	4822 050 11002	1k 1% 0.4W
3143	4822 050 24703	47k 1% 0.6W
3144	4822 101 10927	470Ω
3145	4822 051 20362	3k6 5% 0.1W
3146	4822 050 26803	68k 1% 0.6W
3147	4822 051 20362	3k6 5% 0.1W
3148	4822 050 26803	68k 1% 0.6W
3149	4822 050 26803	68k 1% 0.6W
3150	4822 051 20104	100k 5% 0.1W
3151	4822 050 21502	1k5 1% 0.6W
3160	4822 051 20104	100k 5% 0.1W
3161	4822 050 23903	39k 1% 0.6W
3162	4822 050 11002	1k 1% 0.4W
3163	4822 050 26809	68Ω 1% 0.6W
3164	4822 051 20223	22k 5% 0.1W
3165	4822 116 52289	5k6 5% 0.5W
3166	4822 051 20102	1k 5% 0.1W
3167	4822 050 27502	7k5 1% 0.6W
3168	4822 050 11002	1k 1% 0.4W
3169	4822 051 20473	47k 5% 0.1W
3170	4822 051 20102	1k 5% 0.1W
3172	4822 051 20104	100k 5% 0.1W
3173	4822 051 20104	100k 5% 0.1W
3175	4822 051 20224	220k 5% 0.1W
3179	4822 050 28201	820Ω 1% 0.6W
3180	4822 051 20122	1k2 5% 0.1W
3182	4822 051 20821	820Ω 5% 0.1W
3184	4822 051 20473	47k 5% 0.1W
3185	4822 050 21003	10k 1% 0.6W
3187	4822 116 52207	1k2 5% 0.5W
3188	4822 050 11002	1k 1% 0.4W
3189	4822 050 21003	10k 1% 0.6W

Spare parts list

3201	4822 101 21238	10kB
3202	4822 050 22203	22k 1% 0.6W
3203	4822 050 11504	150k 1% 0.4W
3204	4822 051 20472	4k7 5% 0.1W
3205	4822 051 20122	1k2 5% 0.1W
3206	4822 116 52207	1k2 5% 0.5W
3221	4822 050 22203	22k 1% 0.6W
3222	4822 050 22703	27k 1% 0.6W
3223	4822 050 22203	22k 1% 0.6W
3224	4822 050 22703	27k 1% 0.6W
3226	4822 050 11002	1k 1% 0.4W
3227	4822 050 11002	1k 1% 0.4W
3229	4822 051 20109	10Ω 5% 0.1W
3230	4822 051 20109	10Ω 5% 0.1W
3241	4822 051 20101	100Ω 5% 0.1W
3242	4822 051 20101	100Ω 5% 0.1W
3401	4822 050 21003	10k 1% 0.6W
3402	4822 101 21237	10kB
3403	4822 117 11762	16k 5% 0.5W
3404	4822 050 12203	22k 1% 0.4W
3405	4822 050 23303	33k 1% 0.6W
3406	4822 051 20221	220Ω 5% 0.1W
3407	4822 051 20563	56k 5% 0.1W
3408	4822 051 20183	18k 5% 0.1W
3409	4822 051 20102	1k 5% 0.1W
3410	4822 051 20563	56k 5% 0.1W
3411	4822 051 20102	1k 5% 0.1W
3412	4822 051 20202	2k 5% 0.1W
3413	4822 116 52271	33k 5% 0.5W
3414	4822 050 12203	22k 1% 0.4W
3416	4822 051 20154	150k 5% 0.1W
3417	4822 116 81849	220k 5%
3418	4822 050 25603	56k 1% 0.6W
3419	4822 050 24303	43k 1% 0.6W
3424	4822 117 12429	5Ω1 5% 0.1W
3425	4822 050 26204	620k 1% 0.6W
3426	4822 050 16203	62k 1% 0.4W
3427	4822 051 20124	120k 5% 0.1W
3428	4822 051 20682	6k8 5% 0.1W
3429	4822 051 20822	8k2 5% 0.1W
3430	4822 051 20102	1k 5% 0.1W
3431	4822 117 10833	10k 1% 0.1W
3432	4822 117 10833	10k 1% 0.1W
3433	4822 117 11449	2k2 1% 0.1W
3436	4822 051 20272	2k7 5% 0.1W
3437	4822 051 20184	180k 5% 0.1W
3438	4822 051 20184	180k 5% 0.1W
3441	4822 117 11449	2k2 1% 0.1W
3442	4822 052 11228	2Ω2 5% 0.5W
3443▲	4822 052 11398	3Ω9 5% 0.5W
3444	4822 051 20562	5k6 5% 0.1W
3445▲	4822 052 11228	2Ω2 5% 0.5W
3446▲	4822 117 11529	2k2 5% 2W
3447	4822 050 21802	1k8 1% 0.6W
3448	4822 050 26803	68k 1% 0.6W
3449	4822 117 11012	270Ω 5% 1W
3450	4822 050 22408	2Ω4 1% 0.6W
3451	4822 050 21808	1Ω8 1% 0.6W
3452	4822 050 26803	68k 1% 0.6W
3454	4822 050 15604	560k 1% 0.4W
3455	4822 116 52234	100k 5% 0.5W
3456	4822 051 20821	820Ω 5% 0.1W
3457	4822 051 20272	2k7 5% 0.1W
3458	4822 050 22202	2k2 1% 0.6W
3459	4822 117 11449	2k2 1% 0.1W
3460	4822 051 20272	2k7 5% 0.1W
3461	4822 050 11002	1k 1% 0.4W
3462	4822 051 20333	33k 5% 0.1W
3463	4822 050 19103	91k 1% 0.4W
3464	4822 117 12431	110k 5% 0.1W
3465	4822 116 52234	100k 5% 0.5W
3466	4822 050 24701	470Ω 1% 0.6W
3467	4822 050 12002	2k 1% 0.4W
3468	4822 100 11141	10k 30%lin 0.1W
3469	4822 100 11141	10k 30%lin 0.1W
3470	4822 050 21604	160k 1% 0.6W
3471	4822 050 11204	120k 1% 0.4W
3472	4822 050 22203	22k 1% 0.6W
3473	4822 050 16203	62k 1% 0.4W
3474	4822 050 28203	82k 1% 0.6W
3475	4822 051 20154	150k 5% 0.1W
3476	4822 051 20104	100k 5% 0.1W
3477	4822 051 20223	22k 5% 0.1W
3478	4822 050 11504	150k 1% 0.4W
3479	4822 050 11504	150k 1% 0.4W
3480	4822 050 22004	200k 1% 0.6W
[illegible]	4822 050 23003	30k 1% 0.6W
3483	4822 050 23603	36k 1% 0.6W
3484	4822 051 20122	1k2 5% 0.1W
3485	4822 051 20513	51k 5% 0.1W
3486	4822 050 22203	22k 1% 0.6W
3487	4822 117 11449	2k2 1% 0.1W
3488	4822 117 11449	2k2 1% 0.1W
3489	4822 051 20122	1k2 5% 0.1W

3490	4822 116 52271	33k 5% 0.5W
3491	4822 051 20332	3k3 5% 0.1W
3492	4822 050 24702	4k7 1% 0.6W
3493	4822 117 11449	2k2 1% 0.1W
3494	4822 051 20102	1k 5% 0.1W
3500	4822 116 82962	221Ω 1% 1/4W
3501	4822 050 21003	10k 1% 0.6W
3502	4822 050 21502	1k5 1% 0.6W
3503	4822 050 23903	39k 1% 0.6W
3504	4822 050 21502	1k5 1% 0.6W
3505	4822 051 20472	4k7 5% 0.1W
3506	4822 050 21003	10k 1% 0.6W
3507	4822 117 11383	12k 1% 0.1W
3508	4822 051 20472	4k7 5% 0.1W
3512	4822 051 20563	56k 5% 0.1W
3513	4822 117 10833	10k 1% 0.1W
3514	4822 051 20102	1k 5% 0.1W
3515	4822 117 11383	12k 1% 0.1W
3516	4822 117 11139	1k5 1% 0.1W
3517	4822 051 20681	680Ω 5% 0.1W
3518	4822 051 20102	1k 5% 0.1W
3519	4822 117 11449	2k2 1% 0.1W
3520	4822 051 20822	8k2 5% 0.1W
3521	4822 050 23242	3k24 1% 0.6W
3522	4822 050 21132	1k13 1% 0.6W
3523	4822 117 10833	10k 1% 0.1W
3524	4822 117 11925	75k 1%
3525	4822 050 22703	27k 1% 0.6W
3526	4822 050 14704	470k 1% 0.4W
3527	4822 050 14703	47k 1% 0.4W
3529	4822 051 20102	1k 5% 0.1W
3532	4822 052 10159	15Ω 5% 0.33W
3533	4822 117 11383	12k 1% 0.1W
3534	4822 051 20133	13k 5% 0.1W
3535	4822 050 21802	1k8 1% 0.6W
3536	4822 051 20153	15k 5% 0.1W
3537	4822 050 15604	560k 1% 0.4W
3538	4822 050 13304	330k 1% 0.4W
3539	4822 051 20821	820Ω 5% 0.1W
3540	4822 117 11383	12k 1% 0.1W
3541	4822 050 21201	120Ω 1% 0.6W
3542	4822 117 10833	10k 1% 0.1W
3543	4822 117 12053	10k 5% 1W
3544	4822 117 11527	1k5 5% 3W
3545▲	4822 052 11101	100Ω 5% 0.5W
3546	4822 051 20332	3k3 5% 0.1W
3547▲	4822 052 10221	220Ω 5% 0.33W
3548	4822 050 22203	22k 1% 0.6W
3549	4822 117 11531	39Ω 5% 2W
3550▲	4822 052 10158	1Ω5 5% 0.33W
3551▲	4822 052 10108	1Ω 5% 0.33W
3552	4822 050 16801	680Ω 1% 0.4W
3553	4822 100 11141	10k 30%lin 0.1W
3554	4822 050 16801	680Ω 1% 0.4W
3555▲	4822 052 10108	1Ω 5% 0.33W
3556	4822 051 20102	1k 5% 0.1W
3557	4822 050 15608	5Ω6 1% 0.4W
3558	4822 052 11108	1Ω 5% 0.5W
3580	4822 116 82964	100Ω 1%
3581	4822 050 22203	22k 1% 0.6W
3582	4822 100 11141	10k 30%lin 0.1W
3583	4822 101 21238	10kB
3584	4822 050 13902	3k9 1% 0.4W
3585	4822 050 24702	4k7 1% 0.6W
3586	4822 051 20471	470Ω 5% 0.1W
3587	4822 116 82964	100Ω 1%
3588	4822 050 11002	1k 1% 0.4W
3601	4822 050 24702	4k7 1% 0.6W
3602	4822 051 20472	4k7 5% 0.1W
3603	4822 050 23901	390Ω 1% 0.6W
3604	4822 050 13909	39Ω 1% 0.4W
3605	4822 050 12702	2k7 1% 0.4W
3606	4822 050 22203	22k 1% 0.6W
3607	4822 051 20104	100k 5% 0.1W
3609	4822 051 20154	150k 5% 0.1W
3610	4822 116 52271	33k 5% 0.5W
3611	4822 050 23903	39k 1% 0.6W
3612	4822 051 20473	47k 5% 0.1W
3613	4822 050 24703	47k 1% 0.6W
3614	4822 050 28201	820Ω 1% 0.6W
3615	4822 117 11641	12k
3616	4822 050 21303	13k 1% 0.6W
3617	4822 050 26809	68Ω 1% 0.6W
3618	4822 050 21003	10k 1% 0.6W
3619	4822 051 20102	1k 5% 0.1W
3620	4822 051 20472	4k7 5% 0.1W
3621	4822 051 20101	100Ω 5% 0.1W
[illegible]	4822 051 20821	820Ω 5% 0.1W
3623	4822 051 20102	1k 5% 0.1W
3624	4822 051 20102	1k 5% 0.1W
3625	4822 051 20472	4k7 5% 0.1W
3626	4822 050 11002	1k 1% 0.4W
3627	4822 050 12002	2k 1% 0.4W
3628	4822 116 80941	1k8 1%
3629	4822 117 11533	30k 1% 0.4W

3630▲	4822 052 11228	2Ω2 5% 0.5W
3631	4822 050 14704	470k 1% 0.4W
3632▲	4822 052 10478	4Ω7 5% 0.33W
3633	4822 050 21009	10Ω 1% 0.6W
3634	4822 050 21009	10Ω 1% 0.6W
3635	4822 050 21003	10k 1% 0.6W
3636	4822 050 11002	1k 1% 0.4W
3637	4822 051 20332	3k3 5% 0.1W
3639	4822 117 11531	39Ω 5% 2W
3640▲	4822 052 11109	10Ω 5% 0.5W
3641	4822 050 24701	470Ω 1% 0.6W
3642	4822 052 11109	10Ω 5% 0.5W
3643	4822 050 21001	100Ω 1% 0.6W
3644	4822 050 24701	470Ω 1% 0.6W
3645	4822 050 21003	10k 1% 0.6W
3646▲	4822 052 10109	10Ω 5% 0.33W
3647	4822 050 21201	120Ω 1% 0.6W
3648	4822 050 21804	180k 1% 0.6W
3649	4822 116 82967	68k 0.125
3650	4822 100 11392	47k 30%lin 0.1W
3652	4822 053 21104	100k 5% 0.5W
3653	4822 111 50617	2k2 10% 0.5W
3654	4822 116 52289	5k6 5% 0.5W
3655	4822 100 11585	22k 30%LIN 0.1W
3656	4822 116 52234	100k 5% 0.5W
3657	4822 051 20272	2k7 5% 0.1W
3658	4822 116 52289	5k6 5% 0.5W
3659	4822 117 10032	33Ω 5% 2W
3660	4822 050 11002	1k 1% 0.4W
3661	4822 053 21514	510k 5% 0.5W
3662	4822 053 21154	150k 5% 0.5W
3663	4822 111 20432	4M 7 10% 0.5W
3664	4822 050 22202	2k2 1% 0.6W
3665	4822 117 11149	82k 1% 0.1W
3666	4822 050 24701	470Ω 1% 0.6W
3667	4822 117 10294	1.5Ω 5% 3W
3668	4822 050 26809	68Ω 1% 0.6W
3669	4822 050 16801	680Ω 1% 0.4W
3670	4822 053 10181	180Ω 5% 1W
3671	4822 050 28202	8k2 1% 0.6W
3672	4822 050 11504	150k 1% 0.4W
3673	4822 051 20104	100k 5% 0.1W
3674	4822 050 24703	47k 1% 0.6W
3675	4822 117 11383	12k 1% 0.1W
3676	4822 116 52271	33k 5% 0.5W
3677	4822 050 11504	150k 1% 0.4W
3678	4822 051 20104	100k 5% 0.1W
3679	4822 050 24703	47k 1% 0.6W
3680	4822 117 11383	12k 1% 0.1W
3681	4822 116 52271	33k 5% 0.5W
3682	4822 050 11504	150k 1% 0.4W
3683	4822 116 52234	100k 5% 0.5W
3684	4822 050 24703	47k 1% 0.6W
3685	4822 117 11383	12k 1% 0.1W
3686	4822 116 52271	33k 5% 0.5W
3687	4822 050 21001	100Ω 1% 0.6W
3688	4822 117 10403	22Ω 2W
3689	4822 050 12702	2k7 1% 0.4W
3690	4822 051 20101	100Ω 5% 0.1W
3691	4822 051 20472	4k7 5% 0.1W
3692	4822 051 20153	15k 5% 0.1W
3801	4822 050 22203	22k 1% 0.6W
3802	4822 117 11449	2k2 1% 0.1W
3803	4822 050 22703	27k 1% 0.6W
3804	4822 117 11449	2k2 1% 0.1W
3805	4822 050 22203	22k 1% 0.6W
3806	4822 117 11449	2k2 1% 0.1W
3807	4822 117 11383	12k 1% 0.1W
3808	4822 051 20563	56k 5% 0.1W
3809	4822 117 10833	10k 1% 0.1W
3810	4822 051 20102	1k 5% 0.1W
3811	4822 050 11503	15k 1% 0.4W
3812	4822 051 20472	4k7 5% 0.1W
3813	4822 116 52217	270Ω 5% 0.5W
3814	4822 050 21201	120Ω 1% 0.6W
3815	4822 050 22003	20k 1% 0.6W
3816	4822 051 20332	3k3 5% 0.1W
3817	4822 051 20101	100Ω 5% 0.1W
3818	4822 117 10833	10k 1% 0.1W
3819	4822 050 21502	1k5 1% 0.6W
3820	4822 117 11653	2M 5% 0.1W
3821	4822 117 10833	10k 1% 0.1W
3823	4822 117 10833	10k 1% 0.1W
3825	4822 116 82964	100Ω 1%
3826	4822 117 10833	10k 1% 0.1W
3827	4822 117 10833	10k 1% 0.1W
3828	4822 117 10833	10k 1% 0.1W
3829	4822 117 10833	10k 1% 0.1W
3831	4822 117 10833	10k 1% 0.1W
3832	4822 116 82964	100Ω 1%
3833	4822 116 82964	100Ω 1%
3834	4822 116 82964	100Ω 1%
3835	4822 116 82962	221Ω 1% 1/4W
3836	4822 116 82962	221Ω 1% 1/4W
3837	4822 117 11449	2k2 1% 0.1W

3838	4822 050 22203	22k 1% 0.6W
3839	4822 117 11449	2k2 1% 0.1W
3840	4822 050 15103	51k 1% 0.4W
3841	4822 117 11449	2k2 1% 0.1W
3842	4822 050 22203	22k 1% 0.6W
3843	4822 117 11449	2k2 1% 0.1W
3844	4822 051 20223	22k 5% 0.1W
3845	4822 050 21003	10k 1% 0.6W
3846	4822 050 22202	2k2 1% 0.6W
3847	4822 117 11449	2k2 1% 0.1W
3848	4822 117 11449	2k2 1% 0.1W
3849	4822 051 20332	3k3 5% 0.1W
3850	4822 116 52234	100k 5% 0.5W
3851	4822 050 21003	10k 1% 0.6W
3852	4822 050 24703	47k 1% 0.6W
3853	4822 116 82964	100Ω 1%
3854	4822 116 82964	100Ω 1%
3855	4822 051 20332	3k3 5% 0.1W
3856	4822 051 20332	3k3 5% 0.1W
3857	4822 051 20183	18k 5% 0.1W
3858	4822 050 11503	15k 1% 0.4W
3859	4822 051 20273	27k 5% 0.1W
3860	4822 051 20183	18k 5% 0.1W
3861	4822 050 23302	3k3 1% 0.6W
3862	4822 116 52234	100k 5% 0.5W
3863	4822 050 22203	22k 1% 0.6W
3864	4822 051 20182	1k8 5% 0.1W
3865	4822 051 20243	24k 5% 0.1W
3866	4822 050 11204	120k 1% 0.4W
3867	4822 117 11445	240k 5% 0.1W
3868	4822 117 11445	240k 5% 0.1W
3869	4822 050 21802	1k8 1% 0.6W
3870	4822 052 10108	1Ω 5% 0.33W
3871	4822 050 21002	1k 1% 0.6W
3872	4822 117 12363	56Ω 5% 1W
3873	4822 052 10108	1Ω 5% 0.33W
3874	4822 116 82964	100Ω 1%
3875	4822 116 82964	100Ω 1%
3876	4822 050 22203	22k 1% 0.6W
3877	4822 050 22203	22k 1% 0.6W
3878	4822 050 22203	22k 1% 0.6W
3879	4822 050 22203	22k 1% 0.6W
3880	4822 050 22203	22k 1% 0.6W
3881	4822 050 22203	22k 1% 0.6W
3882	4822 117 11449	2k2 1% 0.1W
3883	4822 117 11449	2k2 1% 0.1W
3884	4822 117 11449	2k2 1% 0.1W
3885	4822 117 11449	2k2 1% 0.1W
3886	4822 117 11449	2k2 1% 0.1W
3887	4822 117 11449	2k2 1% 0.1W
3998	4822 051 20008	0Ω JUMP. (0805)

5101▲	4822 157 10292	14mH
5104	4822 152 20587	7.5µH
5105	4822 152 20587	7.5µH
5110	4822 146 10535	TRANSFORMER
5112	4822 157 10652	ROTATION COIL
5113	4822 157 10659	CANCELLATION COIL
5151	4822 156 21399	COIL
5152	4822 157 71372	COIL
5153	4822 157 52234	100µH
5154	4822 157 52234	100µH
5155	4822 157 52234	100µH
5201	4822 157 52496	COIL
5211	4822 240 30642	2438 264 00052
5212	4822 240 30642	2438 264 00052
5222	4822 526 10522	BEAD, FERRITE
5223	4822 526 10522	BEAD, FERRITE
5224	4822 526 10522	BEAD, FERRITE
5501	4822 157 52496	COIL
5502	4822 157 52496	COIL
5503	4822 157 71197	DRUM 20mH
5504	4822 148 81407	TRANSFORMER
5505	4822 157 53185	COIL
5506	4822 526 10522	BEAD, FERRITE
5580	4822 152 20627	COIL
5601▲	4822 140 10579	LOT ETF-40L1010AZ
5602	4822 157 71372	COIL
5603	4822 142 40346	TRANSFORMER
5604	4822 152 20627	COIL
5605	4822 526 10522	BEAD, FERRITE
5612	4822 157 10661	LIN. COIL FOR MEC CRT
5615	4822 148 81406	TRANSFORMER
5616	4822 157 63211	COIL
5617	4822 526 10522	BEAD, FERRITE
5801	4822 152 20627	COIL

6101	4822 130 80137	1N5406

Spare parts list

6102	4822 130 80137	1N5406
6103	4822 130 80137	1N5406
6104	4822 130 80137	1N5406
6105	4822 130 34685	BZX79-C75 (COL)
6106	4822 130 31393	RGP10J
6107	4822 130 31393	RGP10J
6108	4822 130 31393	RGP10J
6109	4822 130 31607	RGP10D
6110	4822 130 31607	RGP10D
6111	4822 130 31982	BYV27-100
6112	4822 130 30621	1N4148 (COL)
6113	4822 130 30621	1N4148 (COL)
6114	4822 130 34379	BZX79-C27 (COL)
6115	4822 130 31024	BZX79-C18 (COL)
6116	4822 130 30621	1N4148 (COL)
6117	4822 130 30621	1N4148 (COL)
6118	4822 130 34499	BZX79-C20 (COL)
6119	4822 130 34685	BZX79-C75 (COL)
6120	4822 130 80446	BAS32L
6123	4822 130 34233	BZX79-C5V1
6150	4822 130 31982	BYV27-100
6151	4822 130 31393	RGP10J
6152	4822 130 70024	BYM26E
6153	4822 130 80877	BAV103
6154	4822 130 30621	1N4148 (COL)
6155	4822 130 30621	1N4148 (COL)
6156	4822 130 83362	1N4004GP
6157	4822 130 83539	EGP20G
6158	4822 130 31982	BYV27-100
6160	4822 130 31982	BYV27-100
6161	5322 130 32184	BYV27-50
6162	4822 130 31607	RGP10D
6163	4822 130 34328	BZX79-C30 (COL)
6401	4822 130 80446	BAS32L
6402	4822 130 30621	1N4148 (COL)
6403	4822 130 30621	1N4148 (COL)
6404	4822 130 30621	1N4148 (COL)
6405	4822 130 30621	1N4148 (COL)
6406	4822 130 80446	BAS32L
6408	4822 130 31607	RGP10D
6409	4822 130 31024	BZX79-C18 (COL)
6410	4822 130 34441	BZX79-C22 (COL)
6411	5322 130 31504	BZX79-C3V3
6501	4822 130 80877	BAV103
6502	4822 130 80446	BAS32L
6503	4822 130 80446	BAS32L
6504	4822 130 30621	1N4148 (COL)
6506	4822 130 80446	BAS32L
6507	4822 130 31607	RGP10D
6508	4822 130 34281	BZX79-C15 (COL)
6509	4822 130 83128	EGP30G
6510	4822 130 31607	RGP10D
6511	4822 130 31607	RGP10D
6512	4822 130 34197	BZX79-C12 (COL)
6580	4822 130 30621	1N4148 (COL)
6601	4822 130 31607	RGP10D
6602	4822 130 30621	1N4148 (COL)
6603	4822 130 80446	BAS32L
6604	4822 130 80446	BAS32L
6605	4822 130 80446	BAS32L
6606	4822 130 34278	BZX79-B6V8
6607	4822 130 30621	1N4148 (COL)
6608	4822 130 83128	EGP30G
6609	4822 130 42489	RGP10G
6610	4822 130 42489	RGP10G
6613	4822 130 31393	RGP10J
6614	4822 130 31393	RGP10J
6630	4822 130 42489	RGP10G
6633	4822 130 82584	MUR10150E
6634	4822 130 80446	BAS32L
6635	4822 130 80446	BAS32L
6636	4822 130 80446	BAS32L
6801	4822 130 80446	BAS32L
6802	4822 130 83789	L-59YGC
6805	4822 130 80446	BAS32L
6806	4822 130 80446	BAS32L
6807	4822 130 80446	BAS32L
6808	4822 130 80446	BAS32L
6861	4822 130 80446	BAS32L
6862	4822 130 80446	BAS32L
6863	4822 130 80446	BAS32L

7101	4822 209 90755	UC3842AN
7102	4822 130 62627	IRFPC50
7103▲	4822 130 80908	CNX62A
7104	4822 130 70025	BUX87P
7105	4822 130 80908	CNX62A
7106	4822 130 20297	BT169B
7107	4822 130 44503	BC547C
7108	4822 130 44503	BC547C
7109	4822 130 42231	BC557C
7111	4822 130 44503	BC547C
7112	4822 130 42231	BC557C

7149	4822 209 81397	TL431CLP
7150	5322 130 44779	BC338-40
7151	4822 130 20297	BT169B
7152	4822 130 63081	BSN254A
7153	4822 209 72554	MC7800
	4822 492 62076	FOR TRANSISTORS
	4822 466 93161	PLATE, MICA
	5322 390 20011	VET SILIC.P4 20GR
7154	4822 209 80817	L7805CV
7155	4822 130 42513	BC858C
7156	5322 130 44752	BD330
7158	4822 130 42231	BC557C
7160	5322 130 44752	BD330
7161	5322 130 42136	BC848C
7221	4822 209 13706	TDA7053A/N2
7401	4822 130 41646	BF423
7402	5322 130 60068	BC558C
7403	4822 130 10255	MMUN2213
7404	4822 130 10255	MMUN2213
7405	4822 130 42513	BC858C
7407	5322 130 42136	BC848C
7408	5322 130 42136	BC848C
7409	5322 130 42136	BC848C
7410	4822 209 70672	LM358N
7411	4822 130 10255	MMUN2213
7412	4822 130 10255	MMUN2213
7413	4822 130 10255	MMUN2213
7416	4822 130 44196	BC548C
7417	5322 130 60068	BC558C
7421	5322 209 85803	MC1496N
7424	5322 130 42136	BC848C
7429	4822 209 32382	TDA4861/V1
7490	5322 130 42136	BC848C
7501	5322 130 60068	BC558C
7502	5322 130 60068	BC558C
7503	4822 130 41782	BF422
7505	5322 130 42136	BC848C
7506	5322 130 42136	BC848C
7507	4822 130 61129	BCV27
7508	4822 130 44196	BC548C
7509	5322 130 42755	BC847C
7510	4822 130 42513	BC858C
7511	5322 209 11109	74HCT74N
7513	4822 130 42513	BC858C
7514	4822 209 73852	PMBT2369
7515	4822 130 42513	BC858C
7516	4822 209 80797	LM393N
7517	4822 130 63081	BSN254A
7518	5322 130 44779	BC338-40
7519	4822 130 41715	BC328-40
7520	4822 130 63882	MTP6P20E
7521	4822 130 63275	2SA1011E
7522	4822 130 63274	2SC2344E
7523	5322 130 60068	BC558C
7601	4822 209 90755	UC3842AN
7602	4822 209 73852	PMBT2369
7603	5322 130 60068	BC558C
7604	5322 130 60068	BC558C
7605	5322 130 42136	BC848C
7606	4822 130 42513	BC858C
7607	5322 130 42136	BC848C
7608	4822 130 41053	BC639
7609	4822 130 44196	BC548C
7610	4822 130 63703	BUK457-500B
7611	4822 130 63081	BSN254A
7612	4822 130 63702	BUK455-400B
	4822 492 62076	FOR TRANSISTORS
	4822 466 93161	PLATE, MICA
	5322 390 20011	VET SILIC.P4 20GR
7614	4822 130 44196	BC548C
7615	4822 130 70025	BUX87P
7616	5322 130 42136	BC848C
7617	5322 130 42136	BC848C
7630	4822 130 63627	BU2527AF
	5322 390 20011	VET SILIC.P4 20GR
	4822 450 10062	PLATE TRANSPARE
	4822 492 62076	FOR TRANSISTORS
7631	4822 130 63533	BUK455-200A
7632	4822 130 42148	BF420
7633	4822 130 63533	BUK455-200A
7634	4822 130 42148	BF420
7635	4822 130 63533	BUK455-200A
7636	4822 130 42148	BF420
7637	5322 130 44752	BD330
7801	4822 130 44196	BC548C
7802	5322 130 60068	BC558C
7803	4822 130 44196	BC548C
7805	4822 209 13716	MC68HC(7)BD5
7806	4822 130 44196	BC548C
7807	4822 130 44196	BC548C

7861	4822 130 44196	BC548C
7862	4822 130 44196	BC548C
7863	5322 130 60068	BC558C
7864	5322 130 44779	BC338-40
7865	4822 130 41715	BC328-40

1103 Video panel

1103	4822 218 10796	VIDEO PCB ASSY

Various

	4822 265 20366	CONNECTOR, ELEC
	4822 265 31207	5P
	4822 267 10488	5P MALE
	4822 265 41417	7P
	4822 265 41424	11P
	4822 265 41419	6P
	4822 255 70263	CONNECTOR, PICT

2301	4822 124 22678	100µF 20% 16V
2302	5322 122 32452	47pF 5% 63V
2303	5322 122 32452	47pF 5% 63V
2304	5322 122 32658	22pF 5% 50V
2305	4822 124 22681	47µF 20% 16V
2306	4822 126 13196	100nF 10% 25V
2307	4822 126 13196	100nF 10% 25V
2309	4822 122 33127	2.2nF 10% 63V
2310	4822 122 33891	3.3nF 10% 63V
2311	4822 124 22678	100µF 20% 16V
2312	4822 126 13196	100nF 10% 25V
2313	4822 124 40198	470µF 20% 16V
2314	5322 122 32654	22nF 10% 63V
2700	4822 126 13196	100nF 10% 25V
2701	5322 122 32654	22nF 10% 63V
2702	5322 122 32531	100pF 5% 50V
2704	5322 124 40641	10µF 20% 100V
2705	5322 122 32452	47pF 5% 63V
2706	4822 121 43699	220nF 100V
2708	4822 126 13196	100nF 10% 25V
2709	4822 252 60127	DSP201M
2710	4822 126 13196	100nF 10% 25V
2711	5322 122 32654	22nF 10% 63V
2712	5322 122 32452	47pF 5% 63V
2713	5322 122 32654	22nF 10% 63V
2714	5322 124 40641	10µF 20% 100V
2715	5322 122 32452	47pF 5% 63V
2716	4822 121 43699	220nF 100V
2719	4822 252 60127	DSP201M
2720	4822 126 13196	100nF 10% 25V
2721	5322 122 32654	22nF 10% 63V
2722	5322 122 33861	120pF 10% 50V
2724	5322 124 40641	10µF 20% 100V
2725	5322 122 32452	47pF 5% 63V
2726	4822 126 10757	22nF 20% 50V
2727	4822 122 30031	820pF 10% 500V
2728	4822 126 12651	10nF 20% 2K
2729	4822 121 43699	220nF 100V
2736	4822 252 60127	DSP201M
2737	4822 126 13196	100nF 10% 25V
2738	4822 126 13196	100nF 10% 25V
2741	5322 124 40641	10µF 20% 100V
2742	4822 121 43693	10nF 100V
2743	4822 126 10757	22nF 20% 50V
2744	4822 124 22678	100µF 20% 16V
2745	4822 124 22678	100µF 20% 16V
2746	4822 121 43696	100nF 100V
2747	4822 121 43693	10nF 100V
2748	5322 122 32654	22nF 10% 63V
2749	4822 124 22681	47µF 20% 16V
2750	4822 122 33575	220pF 5% 50V
2751	5322 122 33861	120pF 10% 50V
2752	5322 122 33861	120pF 10% 50V
2753	5322 122 33861	120pF 10% 50V
2768	4822 121 43696	100nF 100V

3301	4822 050 21001	100Ω 1% 0.6W
3302	4822 117 11449	2k2 1% 0.1W
3304	4822 050 22201	220Ω 1% 0.6W
3305	4822 050 22202	2k2 1% 0.6W
3306	4822 050 21003	10k 1% 0.6W
3307	4822 050 11509	15Ω 1% 0.4W
3308	4822 051 20471	470Ω 5% 0.1W
3309	4822 051 20102	1k 5% 0.1W
3310	4822 051 20102	1k 5% 0.1W
3311	4822 051 20474	470k 5% 0.1W
3312	4822 051 20332	3k3 5% 0.1W
3313	4822 051 20202	2k 5% 0.1W
3314	4822 117 10833	10k 1% 0.1W
3315	4822 050 24709	47Ω 1% 0.6W

3316	4822 050 24709	47Ω 1% 0.6W
3701	4822 051 20759	75Ω 5% 0.1W
3702	4822 116 83872	220Ω 5% 0.5W
3703	4822 050 11503	15k 1% 0.4W
3704	4822 051 20106	10M 5% 0.1W
3705	4822 116 52197	56Ω 5% 0.5W
3706	4822 051 20569	56Ω 5% 0.1W
3707	4822 050 24709	47Ω 1% 0.6W
3708	4822 117 11924	1k8 5% 3W
3709	4822 117 11925	75k 1%
3710	4822 111 50618	82Ω 10% 0.5W
3711	4822 050 11509	15Ω 1% 0.4W
3712	4822 116 52234	100k 5% 0.5W
3713	4822 050 11509	15Ω 1% 0.4W
3714	4822 051 20479	47Ω 5% 0.1W
3715	4822 116 82455	7k5 0.25W
3716	4822 050 14704	470k 1% 0.4W
3717	4822 050 21804	180k 1% 0.6W
3718	4822 116 52271	33k 5% 0.5W
3719	4822 050 24329	43Ω2 1% 0.6W
3720	4822 050 11509	15Ω 1% 0.4W
3721	4822 051 20681	680Ω 5% 0.1W
3722	4822 051 20681	680Ω 5% 0.1W
3723	4822 051 20681	680Ω 5% 0.1W
3724	4822 050 23302	3k3 1% 0.6W
3725	4822 117 11449	2k2 1% 0.1W
3726	4822 116 52197	56Ω 5% 0.5W
3729	4822 116 52271	33k 5% 0.5W
3730	4822 116 52234	100k 5% 0.5W
3731	4822 051 20759	75Ω 5% 0.1W
3732	4822 116 83872	220Ω 5% 0.5W
3733	4822 050 11503	15k 1% 0.4W
3734	4822 051 20106	10M 5% 0.1W
3735	4822 116 52197	56Ω 5% 0.5W
3736	4822 051 20569	56Ω 5% 0.1W
3737	4822 050 24709	47Ω 1% 0.6W
3738	4822 117 11924	1k8 5% 3W
3739	4822 117 11925	75k 1%
3740	4822 111 50618	82Ω 10% 0.5W
3741	4822 050 23302	3k3 1% 0.6W
3742	4822 116 52234	100k 5% 0.5W
3743	4822 050 11509	15Ω 1% 0.4W
3744	4822 051 20479	47Ω 5% 0.1W
3745	4822 116 82455	7k5 0.25W
3746	4822 050 14704	470k 1% 0.4W
3747	4822 050 21804	180k 1% 0.6W
3748	4822 116 52271	33k 5% 0.5W
3749	4822 050 11509	15Ω 1% 0.4W
3752	4822 050 23302	3k3 1% 0.6W
3753	4822 050 24329	43Ω2 1% 0.6W
3754	4822 117 11449	2k2 1% 0.1W
3755	4822 116 52197	56Ω 5% 0.5W
3758	4822 116 52271	33k 5% 0.5W
3759	4822 050 24329	43Ω2 1% 0.6W
3760	4822 116 52271	33k 5% 0.5W
3761	4822 051 20759	75Ω 5% 0.1W
3762	4822 051 20221	220Ω 5% 0.1W
3763	4822 050 11503	15k 1% 0.4W
3764	4822 051 20106	10M 5% 0.1W
3765	4822 116 52197	56Ω 5% 0.5W
3766	4822 051 20569	56Ω 5% 0.1W
3767	4822 050 24709	47Ω 1% 0.6W
3768	4822 117 11924	1k8 5% 3W
3769	4822 117 11925	75k 1%
3770	4822 111 50618	82Ω 10% 0.5W
3771	4822 117 11449	2k2 1% 0.1W
3773	4822 050 11509	15Ω 1% 0.4W
3774	4822 051 20479	47Ω 5% 0.1W
3775	4822 116 82455	7k5 0.25W
3776	4822 050 14704	470k 1% 0.4W
3777	4822 050 21804	180k 1% 0.6W
3778	4822 116 52271	33k 5% 0.5W
3779	4822 051 20473	47k 5% 0.1W
3780	4822 051 20473	47k 5% 0.1W
3781	4822 050 24702	4k7 1% 0.6W
3782	4822 051 20471	470Ω 5% 0.1W
3783	4822 116 52197	56Ω 5% 0.5W
3784	4822 116 83872	220Ω 5% 0.5W
3785	4822 051 20101	100Ω 5% 0.1W
3786	4822 050 21201	120Ω 1% 0.6W
3787	4822 050 21502	1k5 1% 0.6W
3788	4822 116 80548	15k 5% 0.5W
3789	4822 052 10109	10Ω 5% 0.33W
3791	4822 051 20472	4k7 5% 0.1W
3793	4822 116 83872	220Ω 5% 0.5W
3794	4822 051 20221	220Ω 5% 0.1W
3795	4822 117 11449	2k2 1% 0.1W
3796	4822 051 20008	0Ω JUMP. (0805)
3797	4822 050 13909	39Ω 1% 0.4W
3798	4822 050 13909	39Ω 1% 0.4W
3799	4822 050 13909	39Ω 1% 0.4W

5301	4822 157 52496	COIL
5302	4822 157 52493	COIL
5701	4822 152 20626	COIL
5702	4822 157 52496	COIL
5703	4822 157 53937	COIL
5711	4822 157 10429	COIL
5712	4822 157 52496	COIL
5713	4822 157 53937	COIL
5716	4822 242 82202	100mH z 35R
5717	4822 242 82202	100mH z 35R
5718	4822 242 82202	100mH z 35R
5721	4822 157 53937	COIL
5722	4822 157 52496	COIL
5723	4822 157 53937	COIL
5733	4822 152 20587	7.5µH
5734	4822 157 52496	COIL

6301	4822 130 31438	1N4001GP
6701	4822 130 80877	BAV103
6702	4822 130 30842	BAV21 (COL)
6703	4822 130 80877	BAV103
6704	4822 130 30842	BAV21 (COL)
6711	4822 130 80877	BAV103
6712	4822 130 30842	BAV21 (COL)
6713	4822 130 80877	BAV103
6714	4822 130 30842	BAV21 (COL)
6721	4822 130 80877	BAV103
6722	4822 130 30842	BAV21 (COL)
6723	4822 130 80877	BAV103
6724	4822 130 30842	BAV21 (COL)
6727	4822 130 80446	BAS32L
6728	4822 130 80446	BAS32L
6729	5322 130 31969	RGP15G
6730	5322 130 31969	RGP15G
6731	4822 130 34328	BZX79-C30 (COL)
6732	4822 130 34328	BZX79-C30 (COL)
6736	4822 130 34173	BZX79-C5V6 (COL)
6738	4822 130 42489	BYD33G
6747	4822 130 34328	BZX79-C30 (COL)
6748	4822 130 34328	BZX79-C30 (COL)

7301	4822 209 13717	MC14154I
7302	5322 209 11566	74HC14N
7311	4822 130 44196	BC548C
7312	4822 130 41594	PH2369
7313	4822 130 41594	PH2369
7701	4822 130 62279	2SC3953D
7702	4822 130 63444	2SD756AD
7703	4822 130 63492	2SB716AD
7704	4822 130 41646	BF423
7705	4822 209 90316	24LC21
7706	4822 130 41594	PH2369
7707	4822 130 41782	BF422
7711	4822 130 62279	2SC3953D
7712	4822 130 63444	2SD756AD
7713	4822 130 63492	2SB716AD
7714	4822 130 41646	BF423
7716	4822 130 41594	PH2369
7717	4822 130 41782	BF422
7721	4822 130 62279	2SC3953D
7722	4822 130 63444	2SD756AD
7723	4822 130 63492	2SB716AD
7724	4822 130 41646	BF423
7726	4822 130 41594	PH2369
7727	4822 130 41782	BF422
7731	4822 209 33863	TDA4884